CATALOGUE 25/26

EN

Riwega® | eternitycomfort

Ventilation, impermeability, air tightness

member of Ergepearl group

Riwega has helped to create awareness of the importance of a properly insulated and ventilated roof in the Italian and international markets. In the process, Riwega has become the leading company in the industry. Riwega offers a wide range of highly breathable roof and wall membranes, systems for professional ventilation of the roof, products for water, air and wind tightness and permanent systems for safety. Products for pitched roofs with roof coverings have been the hallmark of the company since its foundation in 1998.
Today, the Riwega brand can claim the best results in the specialization, production and commercialization of building materials that meet the criteria of the current European directives for energy saving and environmental protection. Riwega's innovative lines of development are thus based on current market analyses and the needs derived from them.

Riwega | eternitycomfort

Thanks to more than 25 years of experience in the building sector, Riwega faces different markets: roofing, ventilated facades, and building envelopes.

Riwega's primary goal is to respect the building and environment standards, to guarantee a better living quality and a vision that is linked to long-lasting and healthy buildings. These goals can only be achieved with particularly careful planning and construction of the building, using construction systems that guarantee the benefits of the structural packages: insulation, thermic inertia, ventilation, soundproofing, waterproofing, air and wind tightness.

The chosen products for the creation of the roof packages play a fundamental role: the better their technical features and their durability, the better their contribution to a long-lasting roof package and therefore, to the entire building.

Riwega | eternitycomfort products have been designed to offer planners and builders the opportunity to develop constructions with low energy consumption and a high level of living comfort, with all the guarantees for long durability.

... stands for passion, ambition and energy saving!

For more than 25 years, Riwega has been producing and selling innovative materials that make the every day and working lives of people and companies safer and more environmentally friendly.

Riwega's primary goal is to guarantee top-quality products and technologically advanced solutions for the entire building envelope.

All Riwega products guarantee perfection and safety for your roof.

Riwega® ... means renewal instead of stagnation

... because avant-garde is at home with us

... because innovation makes all the difference

... because innovation is synonymous with the future

... because research and development open the way to the future

Riwega invests massively in research and development, in close contact with customers and partners, with its eyes on the market and in consideration of all applicable regulations, in order to position ourselves as an innovative specialist brand for planners, timber construction companies, carpenters and roofers.

Our goal is to become even better for you every day. Riwega has established itself as one of the leading companies in the field of air and wind resistance and today it is a popular choice for professional associations, public and certification institutions in the field of training and further education in all European countries.

One important achievement in the world of vapour control layers and breathable membranes (SMT), in which Riwega has again been involved fundamentally, is its participation in the technical committee that sets various national and European regulations and standards.

These regulate the application methods for synthetic vapour control layers and breathable membranes. The standards regulate, among other things, their use on pitched roofs, on continuous or non-continuous structures, or in direct contact with thermal insulation.

Riwega follows all the regulations and standards currently in force in Europe, which define the correct design of the junction point when installing windows and doors. Furthermore, Riwega regularly organises training workshops and courses for planners and installers.

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Riwega® | eternitycomfort

R1 Elements for roof ventilation

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R1 Elements for roof ventilation

Graphic references


Mechanically resistant


Pre-folded edge


High adhesion


Water proofness


Easily mouldable


Resistance to strong wind


Fast installation


Ageing resistance


UV resistance

Compliant with UNI 9460

Under ridge elements

What is a ventilated roof?

For the living comfort and the durability of the building, a correct relation between air entry from the eaves and exit from the ridge line has to be guaranteed. To obtain the „Venturi effect" (or chimney effect) the air outlet in the ridge line has to be 25% (by volume) of the air inlet from the eave.

The ideal air-flow section, which is effective in reducing heat flow in summer climate, is at least 55 mm, below the roof batten height (roof with counter-batten + batten) or below supporting planking (roof with double batten). If the roof is not insulated, or in the case of the upper side of under-ventilated planking, where any water vapour accumulation in the roof must only be removed, an air-flow section of at least 20 mm height should be installed. This ensures the healthiness of the roof, reduces maintenance costs and optimises insulation performance.

Advantages of a ventilated roof

Only a correct air circulation where air enters through the eaves and escapes at the ridge level, can avoid critical situations and extend the durability of your roof.

A) **Reduction of humidity**

Reduces or removes the risk of condensation on the bottom side of the covering and in case of rain, snow or strong humidity, avoids that the roof tiles soak up water and transmit the same humidity to the structure below.

B) **Lower summer heat between covering and insulation:**

To reduce the thermal flow during summertime, the optimal section of the ventilation gap should be at least 55 mm. During warm sunny days, when the temperature between the insulation and covering reaches up to 80°C, the ventilated roof avoids overheating and heat propagation inside the insulation package, helping to maintain an adequate climate inside the house.

C) **Flow of infiltrations to the eaves:**

A ventilated roof facilitates the outflow of water infiltrations from the roof covering or other critical points.

D) **Increase in covering durability:**

It allows heat that rises from the inside of the building to be distributed uniformly, avoiding snow melting in defined areas that causes water infiltration where the roof tiles overlap. This way, the prerequisited conditions set by producers of roof tiles, to respect the warranty for freezing/thawing, are fulfilled.

Riwega's under-ridge elements

In this section of the catalogue we deal with materials to be used to ensure a correct ventilation with under-ridge elements, that will respond the best possible way to the technical needs (airflow, avoiding animals and insects to enter inside the roof, good water flow from the ridge tiles to roof tiles) and the need of easy installation and durability.

ROLL-tech

QUICK OVERVIEW: STRENGTHS

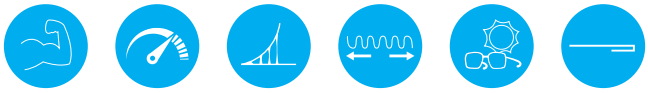
The first, the original

- Under-ridge roll
- Water resistant and UV stable
- Guarantees strong air passage
- Central part in reinforced PP and perfectly adaptable folded aluminium stripe
- Prefolded aluminium edge to increase mechanical resistance

Composition:

1. Aluminium with prefolded edge
2. Seam
3. UV stabilized PP
4. Reinforced PP fabric
5. Extruded butylic glue
6. Silicon liner

Features:



Technical data sheet

Material		**alu.PP.alu**
Pre-folded edge		**YES**
Aluminium stripe		**0,15 mm**
Roll legth		**5,00 m**
Central fabric		**UV stabilized PP**
Central stripe		**reinforced PP fabric**
Material assembly		**glue and seam**
Extruded butylic glue		**140 g/m**
Air flow (each side)	DIN 4108-3	**>145 cm²/m**
UV rays stability		**stable**
Ageing resistance		**>10 years (indirect exp.)**
Temperature resistance		**-30°C / +70°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,45 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**2 pc/box**
Pallet		**60 boxes**

Codes and measures

Colours / Measures	310 mm	370 mm	400 mm
Red-brown	01013101	01013601	01014001
Brown	01013102	01013602	01014002
Black	01013103	01013603	-
Beige	-	01013606	-
Grey	01013104	-	-

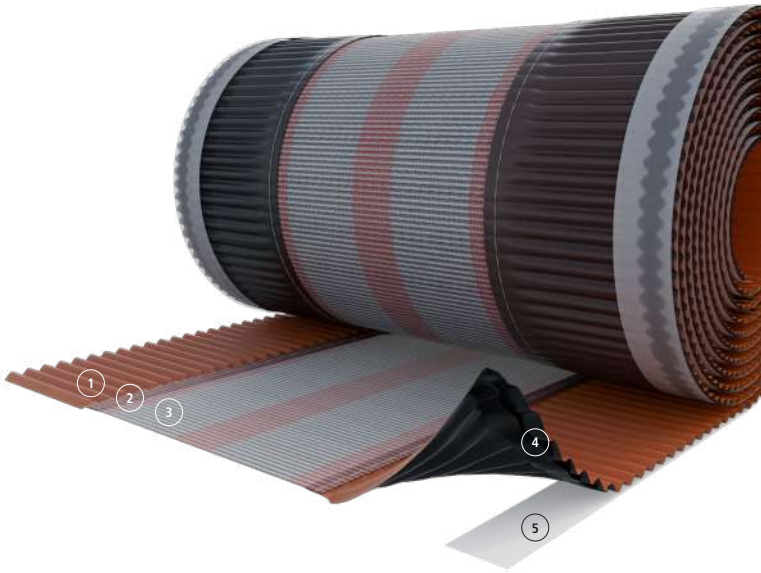
Euro-ROLL

QUICK OVERVIEW: STRENGTHS

The strength is the price

- Under-ridge roll
- Resistant to water infiltrations and UV rays
- Easily adaptable to every type of roof covering
- Pre-folded Alu edge to increase the mechanical resistance
- Blocks access to birds and rodents under the roof tiles

Features:



Technical data sheet

Material		**alu.PP.alu**
Pre-folded edge		**NO**
Aluminium stripe		**0,12 mm**
Roll legth		**5,00 m**
Central fabric		**polypropylene**
Central stripe		**NO**
Material assembly		**glue and seam**
Extruded butylic glue		**90 g/m**
Air flow (each side)	DIN 4108-3	**>145 cm²/m**
Temperature resistance		**-30°C / +70°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,25 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**4 pc/box**
Pallet		**30 boxes**

Codes and measures

Colours / Measures	310 mm	370 mm	400 mm
Red-brown	01013903	01013901	01013906
Brown	01013904	01013902	01013907
Black	01013905	-	-

Composition:

Aluminium (1)

Seam (2)

PP fabric (3)

Extruded butylic glue (4)

Silicon liner (5)

UNI Air ROLL

QUICK OVERVIEW: STRENGTHS

Excellent price/quality ratio

- Under-ridge roll
- Resistant to water infiltrations and UV rays
- Easily adaptable to every type of roof covering
- Pre-folded Alu edge to increase the mechanical resistance
- Blocks access to birds and rodents under the roof tiles

Composition:

1. Aluminium with prefolded edge
2. Seam
3. PP fabric
4. Extruded butylic glue
5. Silicon liner

Features:

Technical data sheet

Material		**alu.PP.alu**
Pre-folded edge		**YES**
Aluminium stripe		**0,12 mm**
Roll legth		**5,00 m**
Central fabric		**UV stabilized PP**
Central stripe		**NO**
Material assembly		**glue and seam**
Extruded butylic glue		**120 g/m**
Air flow (each side)	DIN 4108-3	**>145 cm²/m**
UV rays stability		**stable**
Ageing resistance		**resistant**
Temperature resistance		**-30°C / +70°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,35 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**4 pc/box**
Pallet		**30 boxes**

Codes and measures

Colours / Measures	310 mm	370 mm	400 mm
Red-brown	01010300	01010310	01010400
Brown	01010301	01010311	01010401
Black	-	01010313	01010403

Clima ROLL

QUICK OVERVIEW: STRENGTHS

Double central protection

- Under-ridge roll
- Suitable for areas subject to very strong winds
- Resistant to water infiltrations and UV rays
- Easily adaptable to every type of roof covering
- Pre-folded Alu-edge to increase the mechanical resistance

Features:

Technical data sheet

Material		**alu.TNT multilayer.alu**
Pre-folded edge		**YES**
Aluminium stripe		**0,15 mm**
Roll legth		**5,00 m**
Central fabric		**multilayer fabric**
Central stripe		**NO**
Material assembly		**glue and seam**
Extruded butylic glue		**120 g/m**
Air flow (each side)	DIN 4108-3	**>90 cm²/m**
UV rays stability		**stable**
Ageing resistance		**resistant**
Temperature resistance		**-30°C / +70°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,35 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**4 pc/box**
Pallet		**30 boxes**

Codes and measures

Colours / Measures	**310 mm**	**370 mm**
Red-brown	01013201	01013701
Brown	01013202	01013702
Black	01013203	01013703

Composition:

Aluminium with prefolded edge (1)

Seam (2)

Multilayer fabric (3)

Extruded butylic glue (4)

Silicon liner (5)

Basic ROLL

QUICK OVERVIEW: STRENGTHS

The essential one for roof ventilation

- Under-ridge roll
- Resistant to water infiltrations and UV rays
- Easily adaptable to every type of roof covering
- Blocks access to birds and rodents under the roof tiles

Composition:

1. Aluminium
2. Seam
3. Multilayer PP fabric
4. Butylic glue
5. Silicon liner

Features:

Technical data sheet

Material		**alu.PP.alu**
Pre-folded edge		**NO**
Aluminium stripe		**0,12 mm**
Roll legth		**5,00 m**
Central fabric		**multilayer PP fabric**
Central stripe		**NO**
Material assembly		**glue and seam**
Butylic glue		**80 g/m**
Air flow (each side)	DIN 4108-3	**>50 cm²/m**
Temperature resistance		**-30°C / +70°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,25 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**4 pc/box**
Pallet		**60 boxes**

Codes and measures

Colours / Measures	**310 mm**	**370 mm**
Red-brown	01010318	01010320
Brown	01010319	01010321

TIROLL Air

QUICK OVERVIEW: STRENGTHS

Resistance is its main strength

- Under-ridge roll
- Completely made of metal (aluminium or copper)
- Resistant to water infiltrations and UV rays
- Completely water-resistant, also in case of broken tiles or if a tile is out of line
- Easily adaptable to every type of roof covering

Features:

Technical data sheet

Material		**alu / copper**
Pre-folded edge		**NO**
Red / brown stripe		**0,15 mm**
Beige Antik stripe		**0,12 mm**
Copper stripe		**0,10 mm**
Roll legth		**5,00 m**
Butylic glue red / brown / copper		**90 g/m**
Butylic glue beige Antik		**60 g/m**
Air flow (each side)	DIN 4108-3	**>90 cm²/m**
UV rays stability		**stable**
Ageing resistance		**resistant**
Temperature resistance		**-30°C / +90°C**
Processing temperature		**+5°C / +40°C**
Alu / copper development		**1,20 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**4 pc/box**
Pallet		**30 boxes**

Codes and measures

Colours / Measures	320 mm	370 mm	400 mm
Red-brown	01014321	01014371	01014391
Brown	01014322	01014372	01014392
Beige Antik	-	01014376	-
Copper*	-	-	01016395

*upon demand

Composition:

Aluminium / copper (1)

Extruded butylic glue (2)

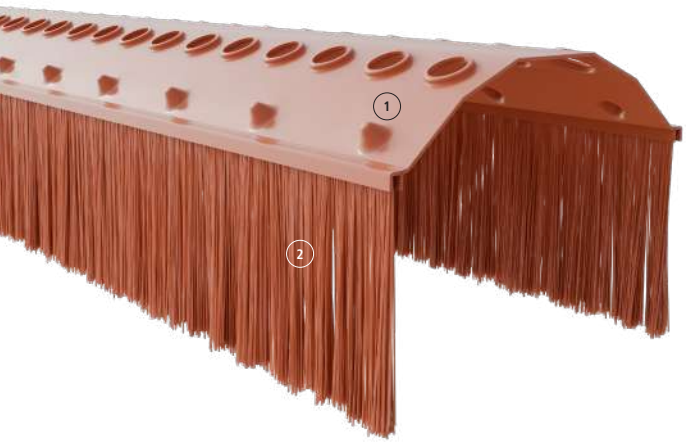
Silicon liner (3)

Venti-tech

QUICK OVERVIEW: STRENGTHS

The tradition of the ventilated roof

- Rigid under-ridge element
- Suitable for roof coverings with curved roof tiles
- Rain and UV ray resistant side brushes
- Blocks access to birds and rodents under the roof tiles
- Lightweight, easy and quick to install



Features:

Composition:

1. PVC
2. UV resistant side brushes

Technical data sheet

Material		**PVC**
Under-ridge width		**175 mm**
Legth		**1 m**
Brushes height		**75 mm**
Air flow (each side)	DIN 4108-3	**>120 cm²/m**
Packaging		**20 pc/box**
Pallet		**10 boxes**

Codes and measures

Colours / Measures	**75 x 175 mm**
Red-brown	01021771
Brown	01021772
Black	01021773

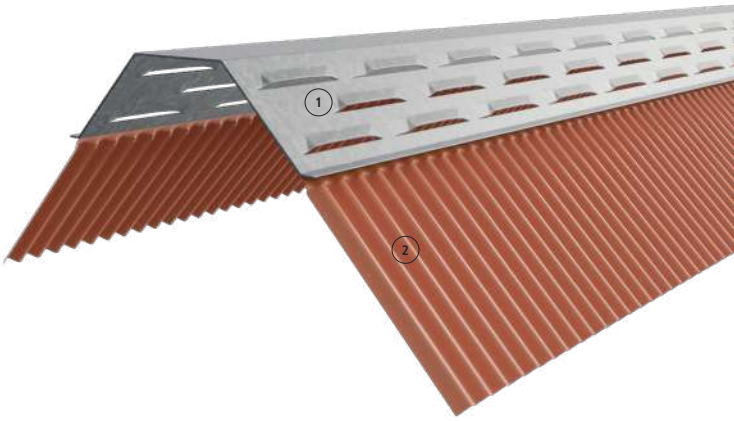
Venti-tech Metal

QUICK OVERVIEW: STRENGTHS

Tradition combined with strength

- Rigid under-ridge element
- Completely made of metal
- Suitable for every ridge or hip line
- Rain and UV ray resistant side brushes
- Blocks access to birds and rodents under the roof tiles
- Easy and quick to install
- Durable

Features:



Composition:

Galvanized iron (1)

Side stripes in aluminium or lead (2)

Technical data sheet

Material central part		**galvanized iron**
Material side stripes		**aluminium or lead**
Alu thickness		**0,15 mm**
Lead thickness		**0,30 mm**
Top stripe's thickness		**min. 150 mm**
Under-ridge's width		**max. 400 mm**
Legth		**1 m**
Side stripes' height		**125 mm**
Butylic adhesive stripes		**YES (only alu type)**
Air flow (each side)	DIN 4108-3	**>100 cm²/m**
Temperature resistance		**+2°C / +90°C**
Packaging		**10 pc/box**
Pallet		**20 boxes**

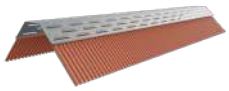
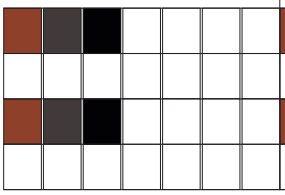
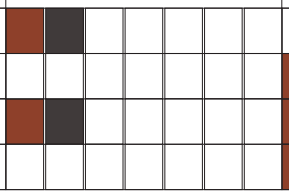
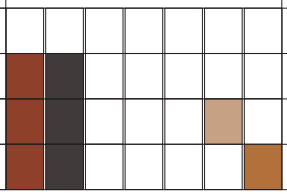
Codes and measures

Version	**Lead**	**Aluminium**
Colours / Measures	**125 x min. 150 - max. 400 mm**	
Red-brown	01024001	01023001
Natural	01024004	-

Under ridge elements

R1

Technical data sheet	ROLL-tech	Euro-ROLL	UNI Air ROLL
	The first, the original	The strength is the price	Excellent price/quality ratio
			
Width 310 mm			
Width 320 mm			
Width 370 mm			
Width 400 mm			
Under-ridge width 175 mm	-	-	-
Width min. 150 - max. 400 mm	-	-	-
Middle part material	**UV stabilized PP**	**PP**	**PP**
Side stripes material	**alu**	**alu**	**alu**
Pre-folded edge	**YES**	**NO**	**YES**
Thickness (alu / pb / cu)	**0,15 mm (alu)**	**0,12 mm (alu)**	**0,12 mm (alu)**
Legth	**5,00 m**	**5,00 m**	**5,00 m**
Height	-	-	-
Central stripe reinforced	**YES**	**NO**	**NO**
Material assembly	**glue and seam**	**glue and seam**	**glue and seam**
Butylic glue	**140 g/m**	**90 g/m**	**120 g/m**
Air flow (each side)	**>145 cm^2/m**	**>145 cm^2/m**	**>145 cm^2/m**
UV rays stability	**stable**	-	-
Alu development	**1,45%**	**1,25%**	**1,35%**

Clima ROLL	Basic ROLL	TIROLL Air	Venti-tech	Venti-tech Metal
Double central protection	The essential one for roof ventilation	Resistance is its main strength	The tradition of the ventilated roof	Tradition combined with strength
				
			-	-
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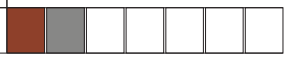
-	-	-	-	
TNT multilayer	PP	alu / copper	PVC	galvanized iron
alu	alu	-	synthetic bristles	alu or lead
YES	NO	NO	-	-
0,15 mm (alu)	0,12 mm (alu)	0,15 mm (alu) 0,12 mm (pb) 0,10 mm (cu)	-	0,15 mm (alu) 0,30 mm (pb)
5,00 m	5,00 m	5,00 m	1,00 m	1,00 m
-	-	-	75 mm	125 mm
NO	NO	-	-	-
glue and seam	glue and seam	-	-	-
120 g/m	80 g/m	90 g/m	-	YES (only alu type)
>90 cm^2/m	>50 cm^2/m	>90 cm^2/m	>120 cm^2/m	>100 cm^2/m
stable	-	stable	-	-
1,35%	1,25%	1,20%	-	-

Accessories for the roof-ventilation

The reason for ventilation

The roofing of a building is the fundamental element of a building since it is the most affected part by climatic variations that follow one another over the seasons and years. Good ventilation allows fresh and clean air to enter the upper part of the building, with continuous air circulation, which is beneficial for the entire structure. Over time, material exposed to humidity and mold deteriorates thus making maintenance work or even a complete replacement necessary.

Riwega's accessories for ventilated roofs

This section displays various types of accessories that contribute to allowing proper roof ventilation. Divided into accessories for laying the ridge and accessories for the eaves, which allow the air-flow but not the access of animals (normally birds and/or rodents) under the roof.

From ridge batten holders, ridge clips and ventilation elements, to systems for protection against the intrusion of birds or rodents: Riwega's assortment for ventilated roofs ensures that all materials that make up the roof do not overheat. The result is optimised efficiency and longer service life of the entire roof system, as well as greater energy savings.

Batten support bracket

QUICK OVERVIEW: STRENGTHS

Essential for a correct ridge tile installation

- Metal batten support brackets
- Adaptable to all kinds of roof cover
- Can be used on all rigid supports (wood or concrete)
- Adjustable in height and available in different measures
- Guarantees stability of the roof covering without using any foam or mortar

Universal batten support bracket

Product	Height (mm)	Width (mm)	Code
Universal 30	220	30	01040130
Universal 40	220	40	01040140
Universal 50	220	50	01040150

Nail-type batten support bracket

Product	Height (mm)	Width (mm)	Code
Nail-type 310/40	310	40	01040440
Nail-type 310/50	310	50	01040450

Kit "S" 57 / Kit "F"

Product	Content	Code
Kit S	30 hooks S57, 14 u. batten support brackets*, 200 nails**	01030140
Kit F	30 hooks F08, 14 u. batten support brackets*, 200 nails**	01030240

*Width = 40 mm; **2,8x35 mm

Ridge tile hooks

QUICK OVERVIEW: STRENGTHS

Guaranteed anchoring

- Pre-shaped aluminium hooks
- Optimal to anchor the ridge tiles to the support batten using screws
- Guarantees stability of the roof covering without using any foam or mortar
- Available in various shapes to adapt to different roof covering types

Ridge tile hook "S" 57

Colour	Material	Use	Code
Brown	Aluminium	Smooth ridge tile	01055702
Red	Aluminium	Smooth ridge tile	01055701

Ridge tile hook "F" 08

Colour	Material	Use	Code
Brown	Aluminium	Interlocking ridge tiles	01050802
Red	Aluminium	Interlocking ridge tiles	01050801

Ridge tile hook "B" 02

Colour	Material	Use	Code
Brown	Aluminium	Concrete ridge tiles	01050202
Red	Aluminium	Concrete ridge tiles	01050201
Black	Aluminium	Concrete ridge tiles	01050203

Eaves ventilation combs

QUICK OVERVIEW: STRENGTHS

The air passage is welcome under the roof covering, while birds are not

- Eaves ventilation combs to protect the ventilation entrance
- Suitable for all types of curved tiles and roof tiles
- Available in different heights and measures
- To guarantee proper opening for correct roof ventilation

PP eaves ventilation combs

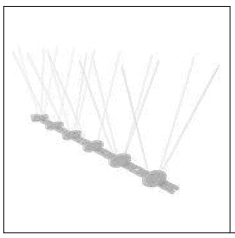
Material	Colour	Measures (mm)	Code
Polypropylene	Red	60x1000	01071062
Polypropylene	Black	60x1000	01071063
Polypropylene	Black	100x1000	01071113

Metal eaves ventilation combs

Material	Colour	Measures (mm)	Code
Galvanized sheet	Pre-coated brown	60x1000	01073062
Galvanized sheet	Pre-coated brown	100x1000	01073102
Copper	Copper	60x1000	01072060
Copper	Copper	100x1000	01072100

PP eaves ventilation combs with support

Version	Material	Colour	Measures (mm)	Code
Comb with support	Polypropylene	Black	60x1000	01074063
Only support	Polypropylene	Black	32x1000	01074064



Anti-bird spikes

Material	Colour	Measures (mm)	Code
Polycarbonate + inox	transparent - natural	500x80xh105	01075126

Angled protection screens

QUICK OVERVIEW: STRENGTHS

Ready-to-use protection

- Rigid net to cover the ventilation entrance
- Barrier against birds and rodents
- Quick and easy to install in the preshaped version
- Resistant to atmospheric agents and UV rays
- Available in different heights and measures

Angled bird protection screen

Material	Colour	Measures (mm)	Code
PVC	Brown	30x50	01081352
PVC	Brown	30x90	01081392
Aluminium	Natural	30x50	01081353
Aluminium	Natural	24x100	01081303
Aluminium	Brown	24x100	01081302

Pre-cut bird protection screen

Colour	Spacing (mm)	Legth (m)	Code
Brown	195	1	01085152
Brown	230	1	01085153

Accessories for pre-cut bird pr. screen: stainless steel hooks

Legth (mm)	Height (mm)	Box (pc)	Code
50	16	400	04013516
50	20	400	04013520
90	16	400	04014916
90	20	400	04014920

Protection screen rolls

QUICK OVERVIEW: STRENGTHS

Flexible protection

- Screen-roll for the protection of the ventilation chamber
- Different opening rates to contrast the entry of birds, rodents and insects
- Resistant to atmospheric agents and UV rays
- Available in different heights and materials

Bird protection screen roll

Material	Colour	Measures (mm x m)	Code
PVC	Red-brown	50x5	01082051
PVC	Brown	50x5	01082052
PVC	Red-brown	80x5	01082081
PVC	Brown	80x5	01082082
PVC	Red-brown	100x5	01082101
PVC	Brown	100x5	01082102
PVC	Red-brown	150x5	01082151
PVC	Brown	150x5	01082152
PVC	Red-brown	180x5	01082181
PVC	Brown	180x5	01082182
Metal sheet	Brown	100x25	01084100
Metal sheet	Galvanized	100x25	01084104
Copper	Copper	50x25	01083050
Copper	Copper	80x25	01083080
Copper	Copper	100x25	01083100
Copper	Copper	150x25	01083150

Insect protection screen roll

Material	Colour	Measures (cm x m)	Code
Aluminium	Natural	10*x30	01086105
Aluminium	Natural	15*x30	01086155
Aluminium	Natural	150x30	01086170

IP Black 95/160

QUICK OVERVIEW: STRENGTHS

Keeps animals from entering into the facade

- Screen-roll for the protection of the ventilation chamber
- Obstructs the passage of birds, rodents and insects in ventilated facades with open joints
- Black, invisible between the facade joints
- UV-stable
- Easy to cut to the desired size

Features:

Composition:

(1) Fiberglass / PVC

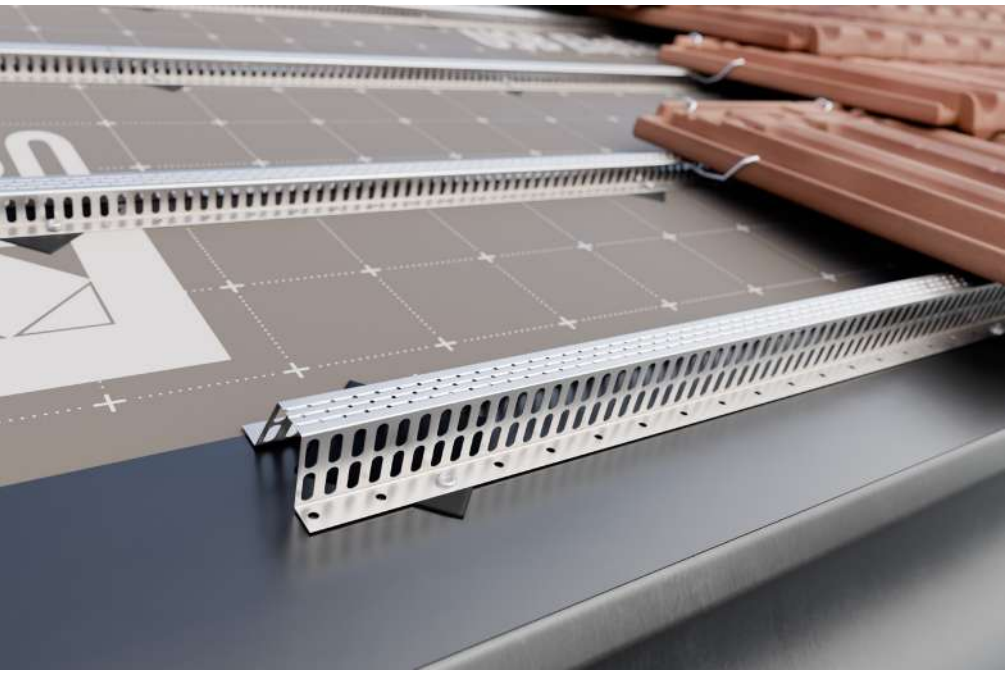
Codes and measures

Code	Width (m)	Length (m)	Box (m²)
01086160	1,6	25	40

Technical data sheet

Material		**35 % Fiberglass / 65 % PVC**	
Colour		**Black**	
Use		**Ventilated facade**	
Mass per unit area	EN 12127	**~ 95 g/m²**	
Fabric per 10 cm		**warp**	**weft**
N° wires		**66**	**60**
Yarn size		**800 dtex**	**800 dtex**
Tensile strength	EN ISO 13934-1	**>500 N/5cm**	**>400 N/5cm**
UV stability		**stable (joints up to max. 30 mm - max. 40 %)**	
Storage		**dry, protected from UV rays, max. +30°C**	

Ventilation batten Metal 2.0



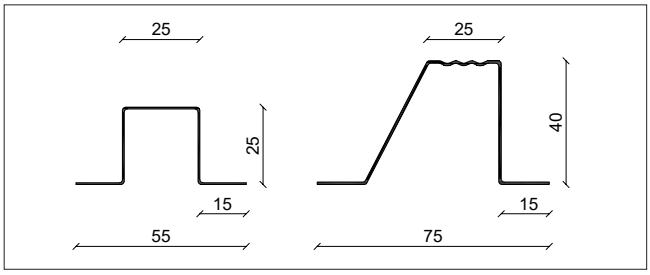
QUICK OVERVIEW: STRENGTHS

Perfect combination of ventilation and anchoring

- Profile dividing strips for laying roof tiles
- Galvanised perforated sheet metal element
- Ensures maximum stability of the roof covering
- Enables ventilation under the roof tiles, air flow is guaranteed over the entire roof pitch

new product

Features:



Composition:

Galvanized iron (1)

Technical data sheet

Material		**galvanized iron**
Width	**55 mm**	**75 mm**
Length		**2 m**
Height	**25 mm**	**40 mm**
Sheet metal thickness	**0,57 mm**	**0,80 mm**
Diameter of fixing holes on the base		**5 mm (on wooden substrate)** **8,5 mm (on concrete or other)**
Areation	**~70 cm²/m**	**~132 cm²/m**
Packaging	**20 pc/box**	**10 pc/box**

Codes and measures

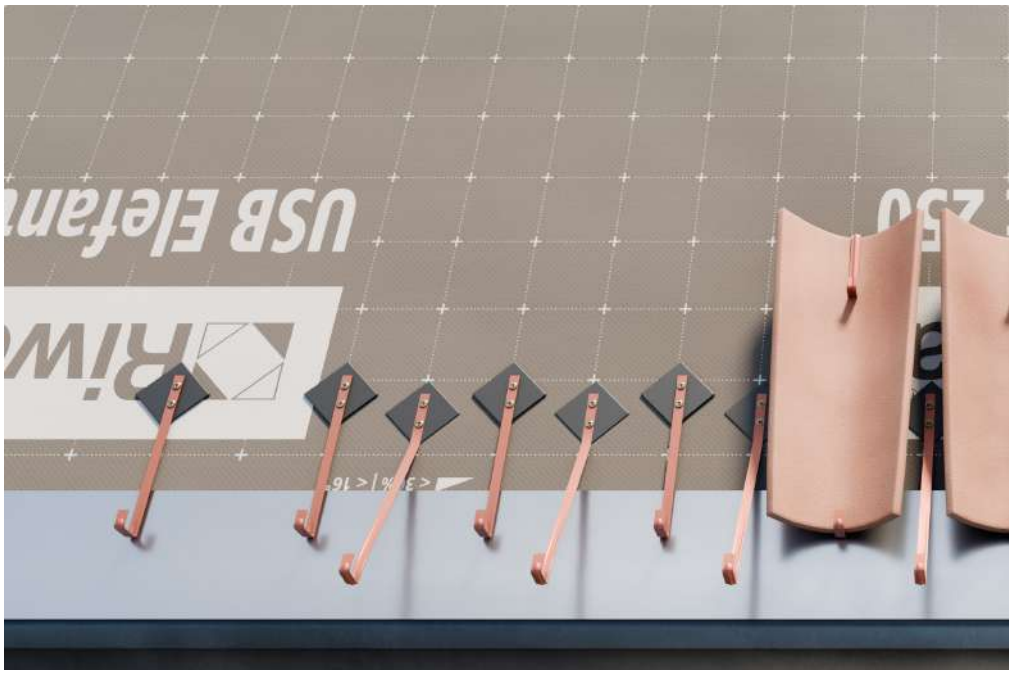
Code	Measures (mmxm)	Height (mm)	Box (pc)
01087025	55x2	25	20
01087040	75x2	40	10

Hooks for smooth tiles - L type

QUICK OVERVIEW: STRENGTHS

Guaranteed stability and ventilation

- L-shaped hook for eaves tiles
- Provide a secure grip for the first row of curved tiles on the pitch
- Ventilated, dry and durable solution
- Guarantees covering stability despite no foam and no mortar being used
- Available in different measures and materials



L-shaped hook for eaves tiles - burnished stainless steel

Legth (mm)	Height (mm)	Box (pc)	Code
200	16	250	04023216
200	20	250	04023220
280	16	250	04023316
280	20	250	04023320

L-shaped hook for eaves tiles - pre-coated red/brown

Legth (mm)	Height (mm)	Box (pc)	Code
200	16	250	04022216
200	20	250	04022220
280	16	250	04022316
280	20	250	04022320

"L-shaped" and "S-shaped" hooks in copper available on request
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Hooks for smooth tiles - S type

QUICK OVERVIEW: STRENGTHS

Guaranteed stability and ventilation

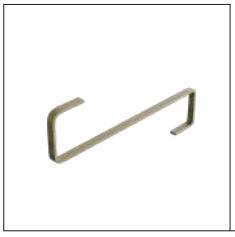
- S-shaped hook for smooth curved tiles
- Prevent tiles from slipping
- Ventilated, dry and durable solution
- Guarantees covering stability despite no foam and no mortar being used
- Available in different measures and materials

S-shaped hook for smooth curved tiles - burnished stainless steel

Legth (mm)	Height (mm)	Box (pc)	Code
90	16	500	04013916
90	20	500	04013920
120	16	500	04013016
120	20	500	04013020

S-shaped hook for smooth curved tiles - pre-coated red/brown

Legth (mm)	Height (mm)	Box (pc)	Code
90	16	500	04012916
90	20	500	04012920
120	16	500	04012016
120	20	500	04012020



S-shaped hook for smooth curved tiles - stainless steel

Legth (mm)	Height (mm)	Box (pc)	Code
90	16	400	04014916
90	20	400	04014920

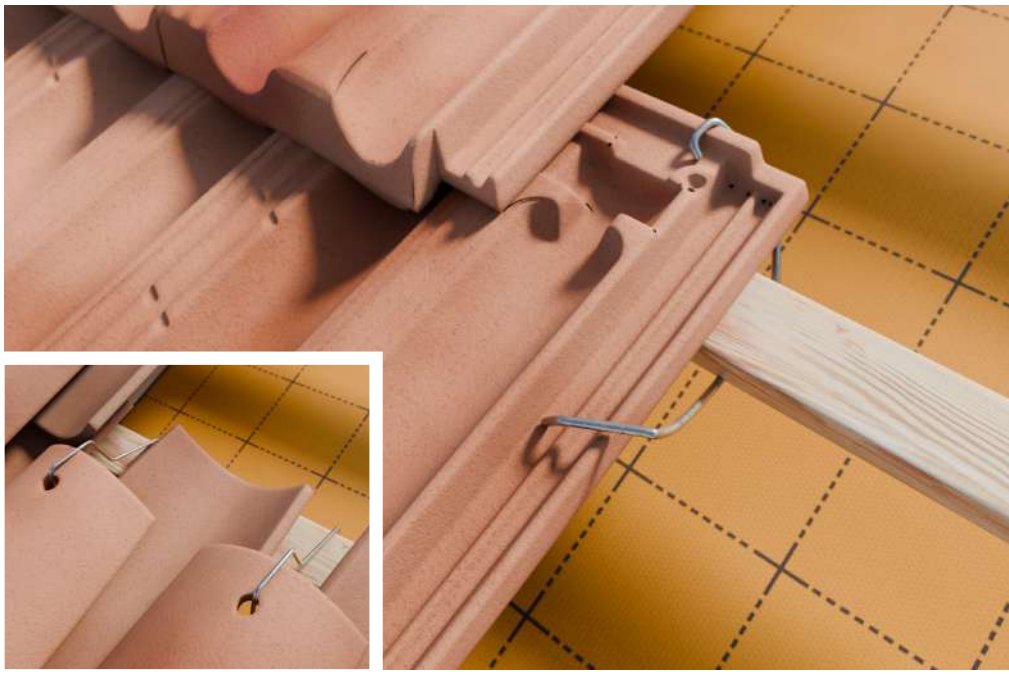
"L-shaped" and "S-shaped" hooks in copper available on request

Hooks for tiles and perforated curved tiles

QUICK OVERVIEW: STRENGTHS

Guaranteed stability and ventilation

- Wind-resistant hooks for tiles
- Pre-shaped hooks for perforated curved tiles
- Prevents tiles slipping or falling from the roof due to strong wind
- Ventilated, dry and durable solution
- Guarantees covering stability despite no foam and no mortar being used



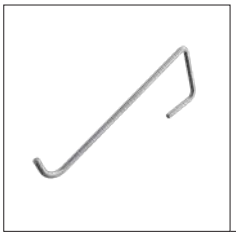
Wind-resistant hook for perforated curved tiles / Wind-resistant hook for shaped clay tiles

Wind resistant hook for tiles

Hook version	Tile type (qty)	Box (pc)	Code
Shaped galvanized iron	Clay (1)	250	04045100
Long galvanized iron	Clay (2)	250	04045300
Galvanized iron	Concrete (1)	500	04045200

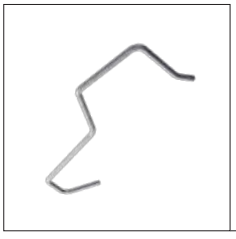
Wind resistant hook for beaver-tail tiles

Material	Batten (mm)	Box (pc)	Code
Galvanized iron	30	200	04055130
Galvanized iron	40	100	04055140



Hook for perforated monk&nun anchoring the non directly on the monk

Material	Legth (mm)	Box (pc)	Code
Galvanized iron	125	1500	04035012
Galvanized iron	160	1500	04035016
Stainless steel	125	1500	04034012



Wind hook for monk&nun tiles anchoring direclty on horizontal battens

Colour	Diameter (mm)	Box (pc)	Code
Galvanized iron	2,5	1500	04035100
Stainless steel*	2,5	1500	04034100

*upon demand

Connections for chimneys and walls

The roof needs connecting elements at various points to allow the correct flow of rainwater from the definitive roof covering to the collection channels. These connections are necessary where the roofing is interrupted, for example on: chimneys, vents, roof windows, supports on walls or shafts, the roof throat lines and on the roof gutter connections.

Riwega's connections

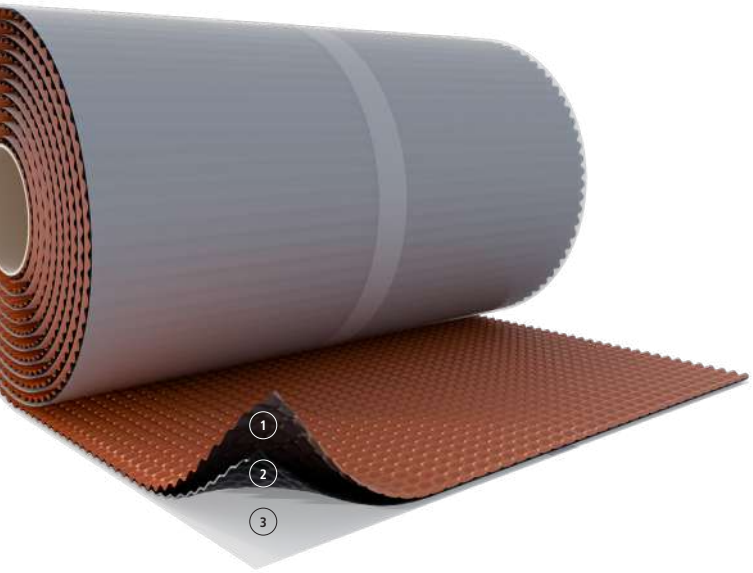
Sheet metal protective joints can be installed at these points. Alternatively, the Riwega range offers complete solutions that meet all other requirements very well: from adaptable, UV and weather-resistant three-dimensional fittings made of aluminum, lead or copper, to spray primers for sealing humid and/or dusty surfaces. Another indispensable accessory is the tape roller: it is the ideal tool for ensuring that the necessary pressure is exerted so that butyl or acrylic adhesives tapes adhere perfectly to the membrane fiber or to other surfaces to be bonded. To achieve optimal results in the long term, nothing must be left to chance when carrying out this work.

ROLL Flex TOP

QUICK OVERVIEW: STRENGTHS

The perfect connection

- Mouldable three-dimensional pleated strip
- Completely adhesive bottom side
- Perfect for sealing every step and interruption on the pitched roof
- Watertight and resistant to UV rays
- Aluminum version available in three different lengths: 30, 45 e 60 cm (unique on the market)



Composition:

1. Aluminium or lead or copper
2. Butylic glue
3. Silicon liner

Features:

Technical data sheet

Material		**alu or lead or copper / butyl**
Copper stripe		**0,10 mm**
Aluminium stripe		**0,15 mm**
Lead stripe		**0,20 mm**
Butylic glue thickness		**1,5 mm**
Roll legth		**5,00 m**
UV rays stability		**stable***
Ageing resistance		**resistant**
Temperature resistance		**-30°C / +90°C**
Processing temperature		**+5°C / +40°C**
Alu development		**1,30 %**
Storage		**dry, protected from UV rays, max. +30°C**
Packaging		**1 pc/box**
Pallet		**48 boxes**

Codes and measures

Version	**aluminium**			**lead**	**copper**
Colours / Measures	**300 mm**	**450 mm**	**600 mm**	**300 mm**	**300 mm**
Red-brown	01107301	01107451	01107601	01106301	-
Brown	01107302	01107452	01107602	01106302	-
Black	01107303	-	-	01106303	-
Copper	-	-	-	-	01108305

*with reference to the Central European climate

Riwega® | eternitycomfort

R2 Breathable membranes and vapour control layers

Our warranties

R2

30 years guarantee

- USB Protector GOLD 330
- USB Protector SILVER 230

25 years guarantee

- USB Protector Head FH 330
- USB Protector Head FH 240
- USB Protector Head FH 155

20 years guarantee

- USB Elefant 250
- USB Classic 220 Green
- USB Classic
- USB Classic Light
- USB Vita

15 years guarantee

- USB Micro Strong
- USB Micro
- USB Micro Light
- USB Micro 230/20
- USB Micro 100/20
- Micro 200 Vario V7
- Micro 150 Vario V20
- Micro 100 Vario V20
- Micro 90 Vario V7
- DS 1500 Syn Strong
- DS 1500 Syn

10 years guarantee

- USB Weld AS
- USB Reflex A2/430
- USB Reflex Plus
- USB Fire Zero
- USB Drenlam Light
- USB Drenlam Diff TOP SK
- Windtop UV Fire A2 50/225
- Windtop UV Fire B 50/210
- Windtop UV Fire B 30/120
- Windtop UV 30/160
- Windtop UV 30/210
- USB Wall 120
- Micro Vario NET V20
- DS Reflex A2/140
- DS 188 ALU
- DS 65 PE
- DS 46 PE
- DS 28 750 PP TOP SK
- DS 48 1100 PP
- DS 48 1300 TOP SK
- DS 48 2200 TOP SK PP-S
- VSK Classic Light
- VSK Clear 280
- VSK Clear Light
- VSK DS 1500 SYN
- VSK Bitum Reflex 1200 AS
- VSK Bitum Reflex 1200
- VSK Bitum Reflex 400
- VSK Bitum ARD

All warranty conditions are available on www.riwega.com/en/guarantees

Graphic references


Roof/wall outside
Wall inside


Roof outside/
ceiling


Roof/Wall
outside


Roof
outside


Wall
outside


Roof/wall
inside


Flat roof
outside/ceiling


Flat roof
outside


Ceiling
inside


High
breathable


Vapour
control layer


Variable
S_d value


Vapour
barrier


Air
tightness


Water
proofness


Heavy rain
resistant


Hail
resistance


Nail
tight


Aging
resistant


Abrasion
resistant


Mechanically
resistant


Very
light


Semi-
transparent


Mesh
reinforced


Usable under
PV panels


UV
resistant


Heat
reflecting


Fire
reaction

Increased
thickness

All
in PP


High
adhesion


Resistant to
extreme conditions


Micro-
ventilation


Acoustic
insulation


Recycled
compound

Compliant with
EN ISO 16000-9

Low
inclinations


Weldeability

Radon gas
barrier


Non-slip
surface

Index

R2

R2 Breathable membranes and vapour control layers

Index

R2 Breathable membranes and vapour control layers

Protector Line

Breathable membranes
UV50 PUR/PP technology e UV50 PUR/PET technology

R2

Riwega focuses on functional raw materials, resistant to ageing and atmospheric agents that can be used in any situation. The breathable Protector line was created to be up to work even with low roof inclination, as it is well-known that the shape and inclination of the roofs are subject to constant changes and this makes us constantly face new challenges. This specially designed product-line ensures correct drying and protects the roof from wind and rain in most weather situations. Energy-saving construction, comfort, experience, research, and development, as well as modern building culture, have something in common: The Protector breathable product line, which is optimal and permanent protection for the values of our building envelopes.

The following chapter is divided according to the properties of breathable membranes, to meet the technical/commercial needs of the current market.

A) **Raw material:** the high-quality Protector raw material can be divided into two groups:

USB Protector SILVER and GOLD product group *[UV50 PUR/PET technology]* where the two cover fleeces, or upper and lower cover fleece, consist of a pure, high-quality thermobonded polyester fleece (PET). The heat-stabilized, indestructible and anti-slipcover fleeces give the two underlays excellent strength and ease of laying, thus preventing the formation of waves on the surface even during hot summer sunshine. The underlayer therefore lies perfectly on every roof.
The functional membrane UV50 PUR corresponds to the highly diffusible and indestructible functional membrane, which is also used in the product group Protector Head FH and is therefore heat and UV resistant and safe even in driving rain. By using these high-quality raw materials, planners, fabricators and - last but not least - the building owner can be sure that the roof will be safe and dry in the future.

Protector Head FH product group *[UV50 PUR/PP technology]* where the two top and bottom coating layers are made of high-quality polypropylene (PP) non-woven fabric, resistant to UV rays and heat. The highly permeable functional membrane (UV50 PUR) is made of pure polyurethane (PU) film, resistant to heat and UV rays, which protects from driving rain and is extremely resistant.
In the USB Protector Head FH product group, the upper coating layer is made of a high-quality polypropylene (PP) non-woven fabric which, in addition to being UV and heat resistant, is also treated with a flame retardant additive named FH (from the German Flammhemmend). Thanks to this process, the USB Protector Head FH membranes report a reaction to fire which lets them extinguish without fueling the flames. When the membrane is no longer in contact with the flame, no reaction occurs anymore. The fire reaction class of the product group according to the European standard EN 13501-1 is E. The reaction to fire improves very good the prevention of fire in comparision to standard membranes.

B) **Production process:**

To weld these high-quality raw materials together and to guarantee long term resistance, a technologically complex and specially designed production process is required. The entire production process, from the raw material to the finished product, is constantly monitored by our highly qualified production staff, in order to guarantee absolute quality.

C) **Mass per unit area:**

Using different raw materials and thicknesses of the upper and lower coating layers, products with different mass-per-unit area values are obtained. The breathable membranes of the USB Protector Head FH line weight 340 g/m^2, 240 g/m^2, and 155 g/m^2; the breathable membranes in PUR/PET have respectively the following mass-per-unit area: USB Protector SILVER with 230 g/m^2 and USB Protector GOLD with 340 g/m^2. This range of materials covers all requirements of the various European standards, which have to be followed to reach tensile strength and good protection against rain.

D) **Durability and guarantee:**

Through years of external tests and laboratory tests, we have been able to ascertain the high quality of our products and we can assure that the breathable membranes of the Protector line are among the best breathable membranes in the world. For this, we can provide guarantees for 25 years for the USB Protector Head FH product group and for a period of 30 years for the USB Protector SILVER and GOLD product group.

Pre-welded custom membranes

The pre-welded custom membranes represent an innovative solution that offers significant advantages in terms of simplicity and efficiency in laying. They are highly breathable waterproof membranes, customized over the entire pitch. Thanks to their careful design and precise cutting, these membranes ensure perfect waterproofing under the roof tile, greatly simplifying and speeding up the laying process. The cut-precision allows for quick and error-free installation, with significant time savings compared to traditional methods. They are UV- and heat stabilized (even at high temperatures); thanks to the FH factor (from the German „FlammHemmend"), fire resistance performance is significantly improved. So, pre-packaged custom membranes are a prime choice, as they optimize the installation process while maintaining the excellent performance of the Protector Line.

USB Protector GOLD 330

QUICK OVERVIEW: STRENGTHS

The excellence in the market

- Highly breathable, water-tight membrane
- The best of our membranes, guaranteed for 30 years
- Extremely resistant to UV rays and extreme weather conditions
- Stronghold against laceration or tearing
- Suitable for installation under photovoltaic system integrated with Class 1 panels

Composition:

1. UV stable, water repellent, protective top layer in PET
2. Film UV50 PUR, monolithic, elastic
3. Protective layer in PET

Features:

30 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ II**
CH SIA 232-1 **UD EB-NB**
DE ZVDH **UDB USB**
FR DTU **40.29**
IT UNI 11470 **A**
CE EN 13859-1

EPD

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02050331	02020331	1,5	40	1200

Technical data sheet

Mass per unit area	EN 1849-2	**340 g/m²**
Thickness		**0,85 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**680 / 610 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 45 %**
Tear resistance MD/CD*	EN 12310-1	**400 / 400 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**12 months**
Temperature resistance		**-40°C / +120°C**

*MD = longitudinal CD = transversal

USB Protector SILVER 230

QUICK OVERVIEW: STRENGTHS

Lower grammage, the same excellence

- Highly breathable, water-tight membrane
- The lightest of the 30 years guaranteed membranes
- Peerless stability to high temperature
- Stronghold against laceration or tearing
- Suitable for installation under photovoltaic system integrated with Class 1 panels

Features:

30 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1

EPD

Composition:

UV stable, water repellent, protective top layer in PET (1)

Film UV50 PUR, monolithic, elastic (2)

Protective layer in PET (3)

Technical data sheet

Mass per unit area	EN 1849-2	**230 g/m²**
Thickness		**0,7 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**450 / 430 N/50mm**
Elongation MD/CD*	EN 12311-1	**35 / 40 %**
Tear resistance MD/CD*	EN 12310-1	**230 / 220 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**12 months**
Temperature resistance		**-40°C / +120°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02050230	020202301	1,5	40	1200

*MD = longitudinal CD = transversal

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USB Protector Head FH 330

QUICK OVERVIEW: STRENGTHS

Unbeatable mechanical resistance

- Highly breathable, water-tight membrane
- Improved fire reaction thanks to the FH factor
- Stronghold against laceration or tearing
- Guaranteed water tight even in extreme conditions
- Suitable for installation under photovoltaic system integrated with Class 1 panels

Features:

25 years guarantee

Classification:

AT	CH	DE	FR	IT	CE
Önorm B 4119 Önorm B 3661 **Typ II**	SIA 232-1 **UD AB-EB-NB**	ZVDH **UDB USB**	DTU **40.29**	UNI 11470 **A**	EN 13859-1

EPD

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Film UV50 PUR, monolithic, elastic
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02050330	02020330	1,5	40	960
020503300	020203300	3,0	40	1920

Technical data sheet

Mass per unit area	EN 1849-2	**340 g/m²**
Thickness		**1,4 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**440 / 380 N/50mm**
Elongation MD/CD*	EN 12311-1	**50 / 60 %**
Tear resistance MD/CD*	EN 12310-1	**390 / 430 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**8 months**
Temperature resistance		**-40°C / +120°C**

*MD = longitudinal CD = transversal

USB Protector Head FH 240

QUICK OVERVIEW: STRENGTHS

The FH factor's importance

- Highly breathable, water-tight membrane
- Improved fire reaction thanks to the FH factor
- Guaranteed water tightness even in extreme conditions
- Guaranteed stability with high temperatures on the roof
- Suitable for installation under photovoltaic system integrated with Class 1 panels

Features:

25 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD AB-EB-NB**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1

EPD

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Film UV50 PUR, monolithic, elastic (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**240 g/m²**
Thickness		**0,93 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**390 / 290 N/50mm**
Elongation MD/CD*	EN 12311-1	**30 / 50 %**
Tear resistance MD/CD*	EN 12310-1	**300 / 400 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**8 months**
Temperature resistance		**-40°C / +120°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02050224	02020224	1,5	50	1500
020502240	020202240	3,0	50	3000

*MD = longitudinal CD = transversal

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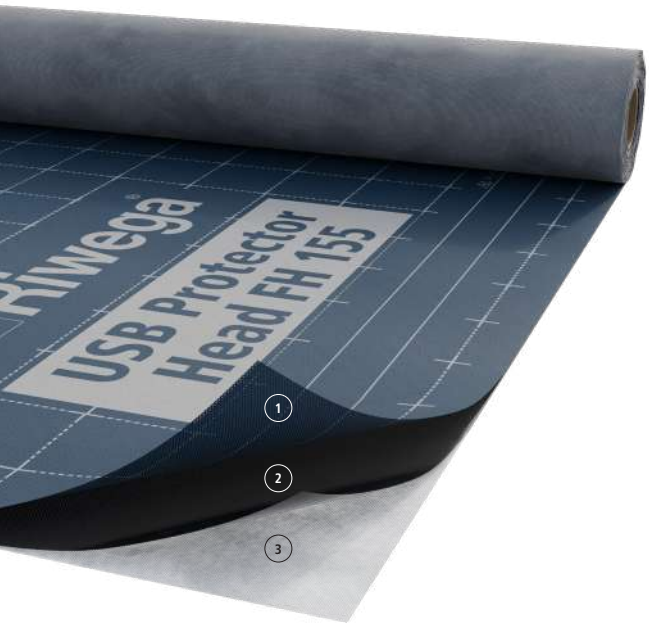
USB Protector Head FH 155

QUICK OVERVIEW: STRENGTHS

The most adaptable of the line

- Highly breathable, water-tight membrane
- Improved fire reaction thanks to the FH factor
- Resistant and light weight, suitable for roof and wall
- Good resistance to high temperatures and UV ray exposure
- Suitable for installation under photovoltaic system integrated with Class 1 panels



Features:

25 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **B**

CE EN 13859-1/2

EPD

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Film UV50 PUR, monolithic, elastic
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)**	Length (m)	Pallet (m²)
02050215	02020215	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**155 g/m²**
Thickness		**0,75 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**300 / 230 N/50mm**
Elongation MD/CD*	EN 12311-1	**90 / 100 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 210 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**8 months**
Temperature resistance		**-40°C / +120°C**

*MD = longitudinal CD = transversal
**3 m version upon request
Riwega Srl is not responsible for negligent and improper use of its products

USB Weld AS

QUICK OVERVIEW: STRENGTHS

Perfect sealing of overlaps and joints

- Breathable, water-tight membrane
- Hot welding by temperatures from 200°C to 300°C or cold welding with THF Welding Liquid
- Suitable also for extreme climatic conditions
- Can be also used with very low roof pitch (≥5°)

Features:

10 years guarantee

5°

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ II**

CH SIA 232-1 **UD AB-EB-NB**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1

Composition:

Weldable PUR layer with non-slip surface (1)

Film in PET (2)

Weldable PU layer (3)

Technical data sheet

Mass per unit area	EN 1849-2	**345 g/m²**
Thickness		**0,9 mm**
S_d value	EN ISO 12572	**0,3 m**
Water vapour permeability	EN ISO 12572	**~ 115 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**350 / 430 N/50mm**
Elongation MD/CD*	EN 12311-1	**45 / 50 %**
Tear resistance MD/CD*	EN 12310-1	**280 / 250 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

The product is suitable for installation with maximum operating temperatures up to 90°C. If this limit is not exceeded, the product can be used under photovoltaic systems. It is necessary to ensure that the ventilation cross-sections and ventilation openings are fully functional for all types of roofs and especially for photovoltaic systems in order to prevent heat build-up. In addition, due to the way in which a photovoltaic system can be installed with gaps between one panel and another, it must be excluded that USB Weld AS becomes the main water-tight drainage layer. USB Weld AS must therefore always be the second waterproofing layer and as such must also be fully protected from direct UV exposure.

Codes and measures

Product	Code	Width (m)	Length (m)	Pallet (m²)
USB Weld AS	02010354	1,5	30	900
USB Weld AS	020103540	3,0	30	1800
USB Welding Strip*	02010353	0,3	10	-

*Universal strips for sealing ventilation battens

Connecting elements and accessories for USB Weld AS on page 200-201

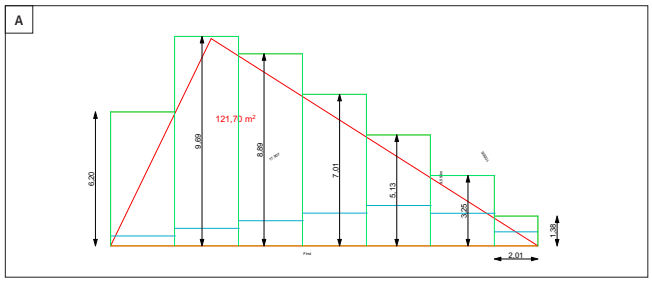
Pre-welded custom membranes

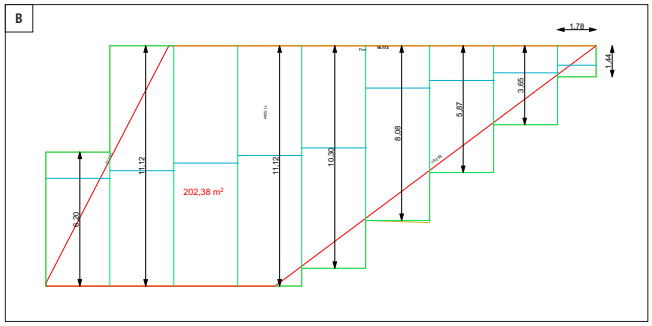
QUICK OVERVIEW: STRENGTHS

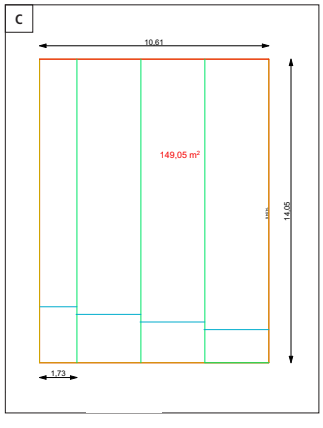
The “pre-welded” model for quick installation

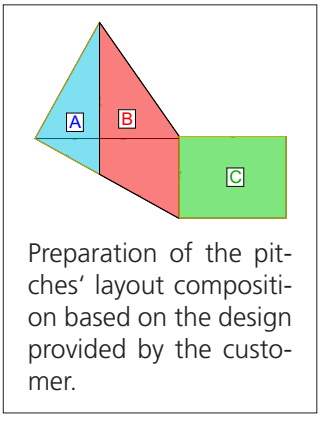
- Highly breathable, watertight membrane
- Pre-welded over the entire roof pitch
- Easier and faster installation
- Safety by homogeneous welding
- Pre-packaged format up to size 20 x 20 m per piece
- No waste on site

Design examples









Preparation of the pitches’ layout composition based on the design provided by the customer.

Codes and measures

Version	Code TOP SK	Width (m)	Length (m)	Surface (m²)
Head FH 330 VK	02050212	max. 20	max. 20	max. 400
Head FH 240 VK	02050211	max. 20	max. 20	max. 400

Pre-welded custom membranes

Place the pallet containing the folded membrane on top of the pitch to be covered

Unfold the membrane starting vertically and attach the first counter-batten to the edge of the pitch

After securing the counter-batten on the edge, unfold the membrane by proceeding horizontally

Cut the membrane and seal it around the parts emerging using the appropriate accessories

After laying the membrane on the roof pitch without folds, secure it with a second counter-batten

Finally, proceed with the placement of the remaining counter-battens and roof tile holder slats

Breathable membranes Protector Line

R2

Technical data sheet	USB Protector GOLD 330	USB Protector SILVER 230
	The excellence in the market	Lower grammage, the same excellence
		
Code 0,3 m	-	-
Code 1,5 m	**02050331**	**02050230**
Code 1,5 m TOP SK**	**02020331**	**020202301**
Code 3,0 m	-	-
Code 3,0 m TOP SK**	-	-
Material	**PET-composite**	**PET-composite**
Film	**UV50 PUR**	**UV50 PUR**
Mass per unit area	**340 g/m²**	**230 g/m²**
Length	**40 m**	**40 m**
S_d value	**0,1 m**	**0,7 m**
Tensile strength MD/CD*	**680 / 610 N/50mm**	**450 / 430 N/50mm**
Elongation MD/CD*	**40 / 45 %**	**35 / 40 %**
Tear resistance MD/CD*	**400 / 400 N**	**230 / 220 N**
Watern column	**>800 cm**	**>800 cm**
Resistance to water passage	**W1**	**W1**
Fire reaction class	**E**	**E**
UV stability	**12 months**	**12 months**
Temperature resistance	**-40°C / +120°C**	**-40°C / +120°C**

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

USB Protector Head FH 330	USB Protector Head FH 240	USB Protector Head FH 155	USB Weld AS
Unbeatable mechanical resistance	The FH factor's importance	The most adaptable of the line	Perfect sealing of overlaps and joints
			
-	-	-	02010353
02050330	02050224	02050215	02010354
02020330	02020224	02020215	-
020503300	020502240	-	020103540
020203300	020202240	-	-
PP-composite	PP-composite	PP-composite	PU.PET.PU
UV50 PUR	UV50 PUR	UV50 PUR	double PU film
340 g/m^2	240 g/m^2	155 g/m^2	345 g/m^2
40 m	50 m	50 m	30 m (10 m for code 0,3 m)
0,1 m	0,1 m	0,1 m	0,3 m
440 / 380 N/50mm	390 / 290 N/50mm	300 / 230 N/50mm	350 / 430 N/50mm
50 / 60 %	30 / 50 %	90 / 100 %	45 / 50 %
390 / 430 N	300 / 400 N	180 / 210 N	280 / 250 N
>800 cm	>800 cm	>800 cm	>800 cm
W1	W1	W1	W1
E	E	E	E
8 months	8 months	8 months	3 months
-40°C / +120°C	-40°C / +120°C	-40°C / +120°C	-40°C / +90°C

Superior Line

Breathable membranes
UV10 Bikom technology

R2

The Superior line encompasses the three main breathable membranes-USB Elefant 250, USB Classic, and USB Classic Light- but for several years the construction method and the building culture itself have undergone important changes. This means that European roofs are becoming less inclined and more technical. Therefore it is necessary to use the right raw materials inside protection products.

A) **Raw material:**

The raw material composing USB Elefant 250, USB Classic and USB Classic Light has been successful on the European market for over 25 years! The technology required for processing the following raw materials for the Superior line is - Upper coating layer: UV stabilized, heat resistant, high-quality polypropylene non-woven fabric and non-slippery (with different colours) - The functional membrane with UV10 Bikom technology: monolithic film, breathable, resistant to rain, resistant to UV rays and heat; grammage of 28 g/m^2 and black. Lower coating layer: high-quality polypropylene non-woven fabric, resistant to UV rays and heat.

The construction evolution led to the development of specific membranes capable of meeting all kinds of needs:

- USB Classic 220 Green: breathability and sustainability in one membrane, thanks to the central film composed of recycled polyurethane and its environmentally sustainable production, reducing CO_2 emissions into the environment;
- USB Vita: polyacrylate coating on non-woven polyester fabric, Class B fire reaction and great resistance to trampling;
- USB Reflex A2/430: noncombustible, ideal in ventilated facades and under photovoltaic panels, where fire risk is very high;
- USB Reflex Plus: reflective surface, ideal for hot climates and over synthetic insulation materials with poor performance in summer to reduce heat transfer through the insulation package;
- USB Fire Zero: nonwoven fabric made of polypropylene and graphite coating, fire rated B_{roof}(t2) specific for protection of any type of insulation under photovoltaic panels and around chimneys.

B) **Production process:**

The advanced production process leads to improvements in breathability. The complex production processes are managed by a high-tech system (jumbo system), according to which the various raw materials are refined in a sort of "welding at the source". The raw material is not heated and therefore maintains the excellent initial technical properties (impermeability to water, permeability to diffusion, tear-resistance, and durability).

C) **Durability and guarantee:**

Thanks to the use of high-quality raw materials, combined with professional installation work on the roof or the wall and in combination with the adhesive tapes and roof ventilation systems recommended by Riwega, we guarantee 20 or 10 years on all Superior line products.

USB Elefant 250

QUICK OVERVIEW: STRENGTHS

Thick, rough and resistant

- Highly breathable, water-tight membrane
- Optimized performance, guaranteed for 20 years thanks to the UV10 Bikom film
- Perfect for watertight wooden roofs and other types
- Rough surface compatible with mortar or foam

Features:

20 years guarantee

Classification:

AT	CH	DE	FR	IT	
Önorm B 4119 Önorm B 3661 **Typ I**	SIA 232-1 **UD EB-NB**	ZVDH **UDB** **USB**	DTU **40.29**	UNI 11470 **A**	EN 13859-1

EPD

new product

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Film UV10 Bikom, monolithic, elastic (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**250 g/m²**
Thickness		**1,10 mm**
S_d value	EN ISO 12572	**0,07 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Watern column	EN 20811	**>800 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**440 / 330 N/50mm**
Elongation MD/CD*	EN 12311-1	**50 / 60 %**
Tear resistance MD/CD*	EN 12310-1	**330 / 360 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02050150	02020233	1,5	40	1200
020501500	020202330	3,0	30	1800

*MD = longitudinal CD = transversal

USB Classic 220 Green

QUICK OVERVIEW: STRENGTHS

Breathability and sustainability in a single membrane

- Highly breathable, watertight membrane
- Functional film composed of a percentage of post-production recyclate
- High mechanical nail tearing resistance
- Eco-friendly production with reduced CO_2 emissions

new product

Features:

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**
CH SIA 232-1 **UD EB-NB**
DE ZVDH **UDB USB**
FR DTU **40.29**
IT UNI 11470 **A**
CE EN 13859-1

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Eco-friendly TPU functional film
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010220	02020315	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**220 g/m²**
Thickness		**1,10 mm**
S_d value	EN ISO 12572	**0,07 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Watern column	EN 20811	**>500 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**300 / 290 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**495 / 515 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

USB Classic

QUICK OVERVIEW: STRENGTHS

The everlasting among breathable membranes

- Highly breathable, water-tight membrane
- Optimised performance, guaranteed for 20 years thanks to the UV10 Bikom film
- The most popular membrane for water-tight pitched roofs
- More than 25 years of history on the market
- Great price/quality ratio

Features:

20 years guarantee

Classification:

AT	CH	DE	FR	IT	
Önorm B 4119 Önorm B 3661 **Typ I**	SIA 232-1 **UD EB-NB** wU-fU	ZVDH **UDB** **USB**	DTU **40.29**	UNI 11470 **B**	CE EN 13859-1

EPD

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Film UV10 Bikom, monolithic, elastic (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**185 g/m²**
Thickness		**0,89 mm**
S_d value	EN ISO 12572	**0,07 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Watern column	EN 20811	**>400 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**350 / 260 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**200 / 240 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010160	02020161	1,5	50	1500
020101600	020201610	3,0	50	3000

*MD = longitudinal CD = transversal

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USB Classic Light

QUICK OVERVIEW: STRENGTHS

The lightest for the roof, the most resistant for the wall

- Highly breathable, water-tight membrane
- Optimised performance, guaranteed for 20 years thanks to the UV10 Bikom film
- Ideal for wind-tightness of ventilated facades with closed joints
- Recommended for roofs with a roof pitch over 30%
- Non-slip and non-reflective surface

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Film UV10 Bikom, monolithic, elastic
3. Protective layer in PP

Features:

20 years guarantee

Classification:

AT	CH	DE	FR	IT	
Önorm B 4119 Önorm B 3661 **Typ I**	SIA 232-1 **UD EB-NB** wU-fU	ZVDH **UDB** **USB**	DTU **40.29** **31.2**	UNI 11470 **B**	CE EN 13859-1/2

EPD

Codes and measures

Code	Code TOP SK	Width (m)**	Length (m)	Pallet (m²)
02010140	020201501	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**155 g/m²**
Thickness		**0,75 mm**
S_d value	EN ISO 12572	**0,07 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Watern column	EN 20811	**>400 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**290 / 225 N/50mm**
Elongation MD/CD*	EN 12311-1	**65 / 90 %**
Tear resistance MD/CD*	EN 12310-1	**170 / 200 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal
**3 m version upon request
Riwega Srl is not responsible for negligent and improper use of its products

USB Vita

QUICK OVERVIEW: STRENGTHS

Great combination of UV ray and fire resistance

- Highly breathable membrane
- B-S1, d0 fire reaction class
- Poly-acrylic spread coating, extremely resistant to UV rays
- Fire protection also suitable with closed joints

Features:

20 years guarantee

Classification:

AT	CH	DE	FR	IT	
Önorm B 4119 Önorm B 3661 **Typ I**	SIA 232-1 **UD EB-NB** wU-fU	ZVDH **UDB** **USB**	DTU **40.29**	UNI 11470 **A**	EN 13859-1/2

EPD

Composition:

Poly-acrylic coating, extremely resistant to UV rays (1)

PET non-woven fabric (2)

Technical data sheet

Mass per unit area	EN 1849-2	**270 g/m²**
Thickness		**0,50 mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**320 / 200 N/50mm**
Elongation MD/CD*	EN 12311-1	**30 / 35 %**
Tear resistance MD/CD*	EN 12310-1	**130 / 140 N**
Fire reaction class	EN 13501-1	**B-s1, d0**
UV stability		**9 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010303	02020310	1,5	50	2250

*MD = longitudinal CD = transversal

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USB Reflex A2/430

QUICK OVERVIEW: STRENGTHS

Fire resistance on roof and facade

- Breathable, water-tight membrane
- Class A2 reaction to fire
- Reflective surface for better hot weather-performance
- Ideal for wind and water tightness of roofs and facades with closed joints
- Increased weight and strength for better mechanical resistance

Features:

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ II**

CH SIA 232-1 **UD EB-NB**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

EN 13859-1/2

Composition:

1. Silicone liner
2. Micro-perforated aluminium film with integrated adhesive tapes
3. Functional film
4. Fibre glass

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010344	-	1,2	35	1764

Technical data sheet

Mass per unit area	EN 1849-2	**430 g/m²**
Thickness		**0,43 mm**
S_d value	EN ISO 12572	**0,08 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Reflection coefficient		**0,95 R**
Emissivity of outer surface (ε)	EN ISO 22097	**0,04**
Tensile strength MD/CD*	EN 12311-1	**3000 / 3200 N/50mm**
Elongation MD/CD*	EN 12311-1	**6 / 5 %**
Tear resistance MD/CD*	EN 12310-1	**580 / 450 N**
Fire reaction class	EN 13501-1	**A2-s1,d0**
UV stability		**9 months**
Temperature resistance		**-40°C / +90°C**

*MD = longitudinal CD = transversal

USB Reflex Plus

QUICK OVERVIEW: STRENGTHS

Waterproofing with maximum heat reflection

- Highly breathable, water-tight membrane
- Reduces the passage of heat to the insulation material, thanks to the reflective surface
- Recommended to be used with synthetic insulating materials with low mass
- The benefit of reflection also for ventilated facades with closed joints

Features:

10 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB** wU-fU

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1/2

EPD

Composition:

Layer in pre-perforated alu with antioxidant, protective PE film (1)

PE reinforcement mesh (2)

Functional film in PP (3)

Protective layer in PP (4)

Technical data sheet

Mass per unit area	EN 1849-2	**200 g/m²**
Thickness		**0,50 mm**
S_d value	EN ISO 12572	**0,045 m**
Water vapour permeability	EN ISO 12572	**~ 530 g/m²/24 h**
Watern column	EN 20811	**>350 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Reflection coefficient		**0,95 R**
Emissivity of outer surface (ε)	EN 15976	**0,05**
Tensile strength MD/CD*	EN 12311-1	**350 / 190 N/50mm**
Elongation MD/CD*	EN 12311-1	**30 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**200 / 200 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010302	02020309	1,5	50	2250

*MD = longitudinal CD = transversal

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USB Fire Zero

QUICK OVERVIEW: STRENGTHS

The best fire resistant system

- Highly breathable membrane
- B_{roof} (t2) class, suitable for use under photovoltaic systems
- The best choice for protecting coverings and ventilated facades from fire
- The graphite layer protects every type of insulating material
- Perfect sealing of interruptions and joints with Fire Zero Liquid or Coll Fire B 75

Features:

Classification:

Composition:

1. Graphite
2. Fiber glass
3. Functional film in PP
4. Protective layer in PP

Codes and measures

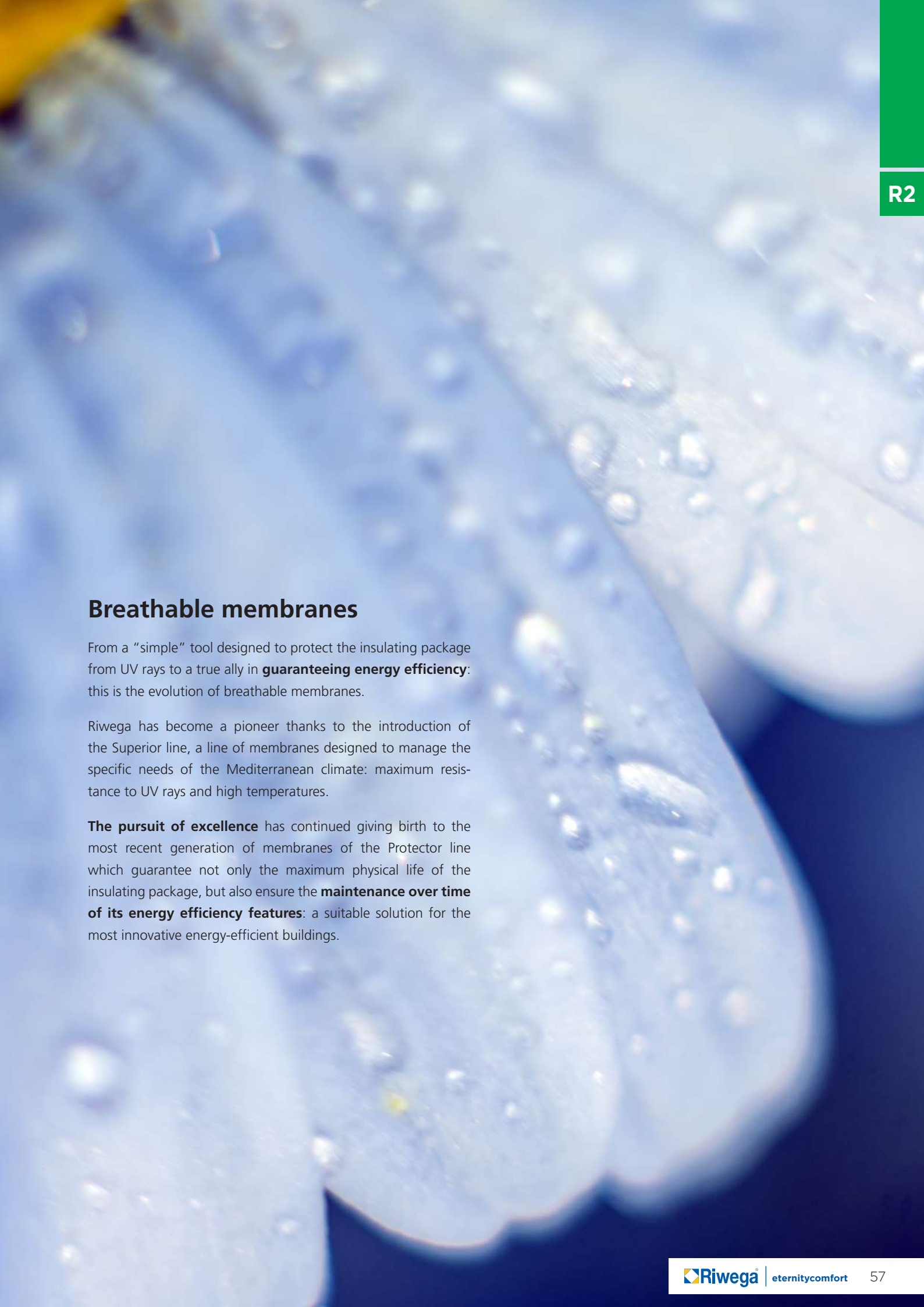
Code	Code TOP SK	Width (m)	Length (m)	Pallet (m^2)
02010341	-	1,1	20	528

System accessories for USB Fire Zero on page 202

Technical data sheet

Mass per unit area	EN 1849-2	**720 g/m²**
Membran thickness	EN 1849-2	**1,20 mm**
S_d value	EN ISO 12572	**0,08 m**
Water vapour permeability	EN ISO 12572	**~ 250 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**300 / 275 N/50mm**
Elongation MD/CD*	EN 12311-1	**2-3 / 2-3 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 220 N**
Fire reaction class	EN 13501-1	**B-s1, d0**
	EN 13501-5	**B_{roof} (t2), (t3), (t4)**
UV stability		**6 months**

*MD = longitudinal CD = transversal



Breathable membranes

From a "simple" tool designed to protect the insulating package from UV rays to a true ally in **guaranteeing energy efficiency**: this is the evolution of breathable membranes.

Riwega has become a pioneer thanks to the introduction of the Superior line, a line of membranes designed to manage the specific needs of the Mediterranean climate: maximum resistance to UV rays and high temperatures.

The pursuit of excellence has continued giving birth to the most recent generation of membranes of the Protector line which guarantee not only the maximum physical life of the insulating package, but also ensure the **maintenance over time of its energy efficiency features**: a suitable solution for the most innovative energy-efficient buildings.

Breathable membranes Superior Line

R2

Technical data sheet	USB Elefant 250	USB Classic 220 Green	USB Classic
	Thick, rough and resistant	Breathability and sustainability in a single membrane	The everlasting among breathable membranes
			
Code 1,1 m	-	-	-
Code 1,5 m	02050150	02010220	02010160
Code 1,5 m TOP SK**	02020233	02020315	02020161
Code 3,0 m	020501500	-	020101600
Code 3,0 m TOP SK**	020202330	-	020201610
Material	PP-composite	PP.TPU.PP	PP-composite
Film	UV10 Bikom	eco-friendly TPU	UV10 Bikom
Mass per unit area	250 g/m²	220 g/m²	185 g/m²
Length	40 m (30 m for code 3,0 m)	50 m	50 m
S_d value	0,07 m	0,07 m	0,07 m
Tensile strength MD/CD*	440 / 330 N/50mm	300 / 290 N/50mm	350 / 260 N/50mm
Elongation MD/CD*	50 / 60 %	40 / 70 %	60 / 80 %
Tear resistance MD/CD*	330 / 360 N	495 / 515 N	200 / 240 N
Watern column	>800 cm	>500 cm	>400 cm
Resistance to water passage	W1	W1	W1
Fire reaction class	E	E	E
UV stability	6 months	6 months	6 months
Temperature resistance	-40°C / +100°C	-40°C / +100°C	-40°C / +100°C

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

USB Classic Light	USB Vita	USB Reflex A2/430	USB Reflex Plus	USB Fire Zero
The lightest for the roof, the most resistant for the wall	Great combination of UV ray and fire resistance	Fire resistance on roof and facade	Waterproofing with maximum heat reflection	The best fire resistant system
				
-	-	-	-	02010341
02010140	02010303	02010344	02010302	-
020201501	02020310	-	02020309	-
-	-	-	-	-
-	-	-	-	-
PP-composite	PET-Acrylic	micro-perforated aluminium foil, functional film, fibre glass fabric	PP.PP.Alu.PE	PP.PP.graphite
UV10 Bikom	Poly-acrylic coating	breathable functional film	PP	PP
155 g/m^2	270 g/m^2	430 g/m^2	200 g/m^2	720 g/m^2
50 m	50 m	35 m	50 m	20 m
0,07 m	0,02 m	0,43 m	0,045 m	0,08 m
290 / 225 N/50mm	320 / 200 N/50mm	3000 / 3200 N/50mm	350 / 190 N/50mm	300 / 275 N/50mm
65 / 90 %	30 / 35 %	6 / 5 %	30 / 70 %	2-3 / 2-3 %
170 / 200 N	130 / 140 N	580 / 450 N	200 / 200 N	180 / 220 N
>400 cm	>200 cm	-	>350 cm	>200 cm
W1	W1	W1	W1	W1
E	B-s1, d0	A2-s1,d0	E	B-s1, d0 / B_{roof} (t2), (t3), (t4)
6 months	9 months	9 months	4 months	6 months
-40°C / +100°C	-40°C / +100°C	-40°C / +90°C	-40°C / +100°C	-

Eurostandard Line

Windproof membranes

R2

The Eurostandard line features windproof breathable membranes made of a three-layer PP composite. These are standard products used in the European market for years. However, both climate changes and the technological evolution in the world of synthetic membranes have led to the replacement of this type of membrane by membranes with monolithic functional films that are more resistant to heat and UV radiation. Eurostandard membranes, characterized by the microporous central film, are ideal for ensuring air- and wind resistance of the roof during building renovation, which is later protected by the new layer of insulating material and the final roofing membrane.

A) **Raw material:**
The breathable membrane is made of PP non-woven fabrics that are sufficiently UV and heat resistant, with non- slippery properties. These fleeces protect the grey, microporous functional membrane.

B) **Production process:**
To couple these long-term raw materials and make them functional, a technologically complex and specially developed production process is required. The entire production process, from the raw material to the finished product, is constantly monitored by our highly qualified production staff.

C) **Mass per unit area:**
By using different thicknesses of the upper and lower coating layer, different weights are obtained. The breathable membranes of the Eurostandard line weight 100 g/m², 143 g/m², 150 g/m², 155 g/m², 185 g/m² and 200 g/m². This range of materials covers all the requirements of the various European standards for tensile strength and protection against rain.

D) **Guarantee:**
Through the use of non-woven PP fabrics of standard quality and a microporous functional membrane in PP, a guarantee is issued on the Eurostandard line according to current regulations. Our technology expressly emphasizes that the different membranes of the Eurostandard line, as described in the technical sheet, must always be protected with the definitive roof covering layer as quickly as possible.

DO 200

QUICK OVERVIEW: STRENGTHS

The 100% PP solution with high grammage

- Highly breathable, water-tight membrane
- High grammage which ensures high mechanic performance
- High tearing resistance
- A non-slip surface allows easy laying
- 100% completely recyclable polypropylene

Features:

PP 100%

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB**

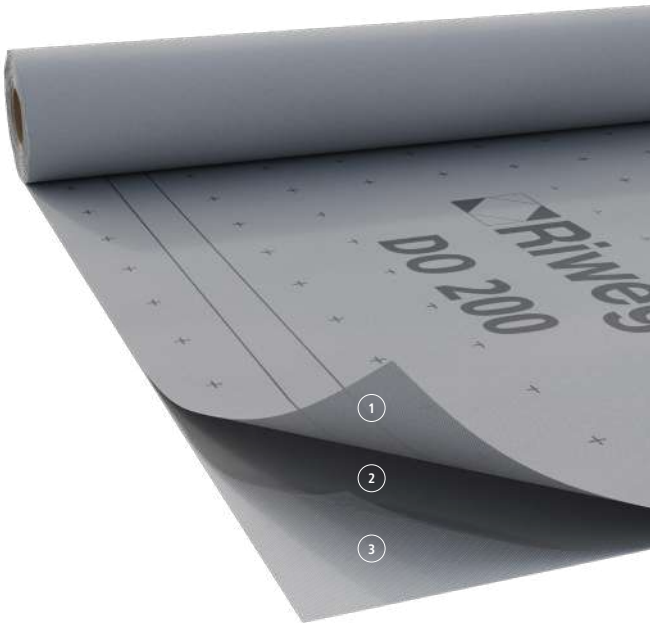
DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1

EPD



Composition:

Protective UV stabilized, water repellent layer in PP (1)

Microporous film in PP (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**200 g/m²**
Thickness		**0,80 mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**480 / 330 N/50mm**
Elongation MD/CD*	EN 12311-1	**75 / 120 %**
Tear resistance MD/CD*	EN 12310-1	**260 / 360 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010200	02020314	1,5	50	1500

*MD = longitudinal CD = transversal

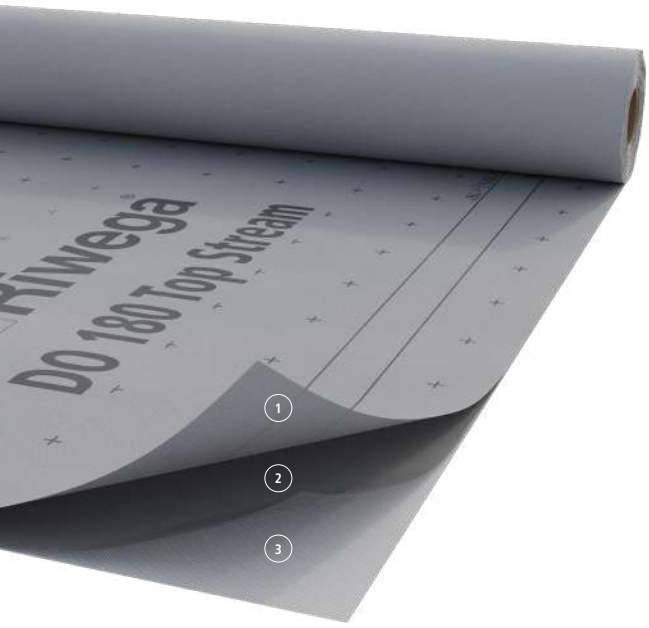
Riwega Srl is not responsible for negligent and improper use of its products

DO 180 Top Stream

QUICK OVERVIEW: STRENGTHS

The 100% PP solution with medium grammage

- Highly breathable, water-tight membrane
- High grammage which ensures high mechanic performance
- High tearing resistance
- The non-slip surface allows easy laying
- 100% in completely recyclable polypropylene



Features:

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB** wU-fU

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **B**

CE EN 13859-1

EPD

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Microporous film in PP
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010180	02020317	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**185 g/m²**
Thickness		**0,83 mm**
S_d value	EN ISO 12572	**0,04 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**400 / 375 N/50mm**
Elongation MD/CD*	EN 12311-1	**45 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**280 / 310 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

*MD = longitudinal CD = transversal

DO 155

QUICK OVERVIEW: STRENGTHS

The 100% PP solution with low grammage

- Highly breathable, water-tight membrane
- Light membrane for roofs and resistant membrane for walls, perfect for wind-tightening of ventilated facades
- High tearing resistance
- The non-slip surface allows easy laying
- 100% in completely recyclable polypropylene

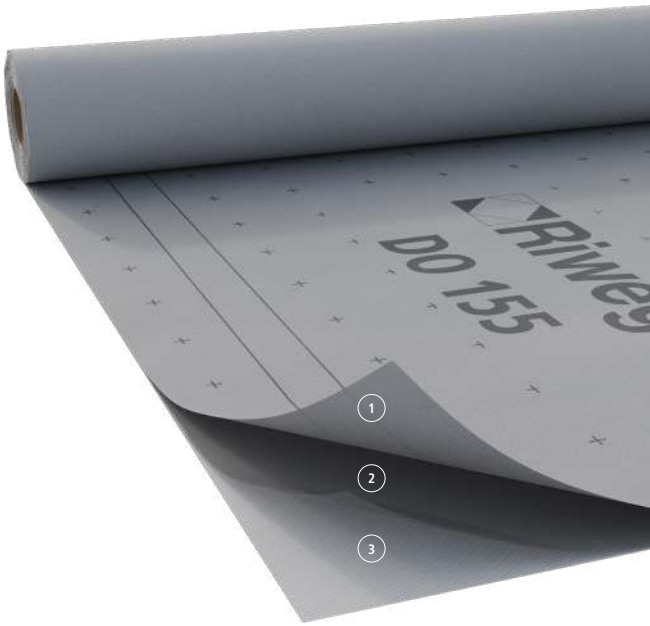
Features:

PP 100%

Classification:

AT	CH	DE	FR	IT	
Önorm B 4119 Önorm B 3661 **Typ I**	SIA 232-1 **UD EB-NB** wU-fU	ZVDH **UDB** **USB**	DTU **40.29**	UNI 11470 **B**	CE EN 13859-1/2

EPD



Composition:

Protective UV stabilized, water repellent layer in PP (1)

Microporous film in PP (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**155 g/m²**
Thickness		**0,60 mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**350 / 260 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**200 / 225 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010190	02020312	1,5	50	1500

*MD = longitudinal CD = transversal

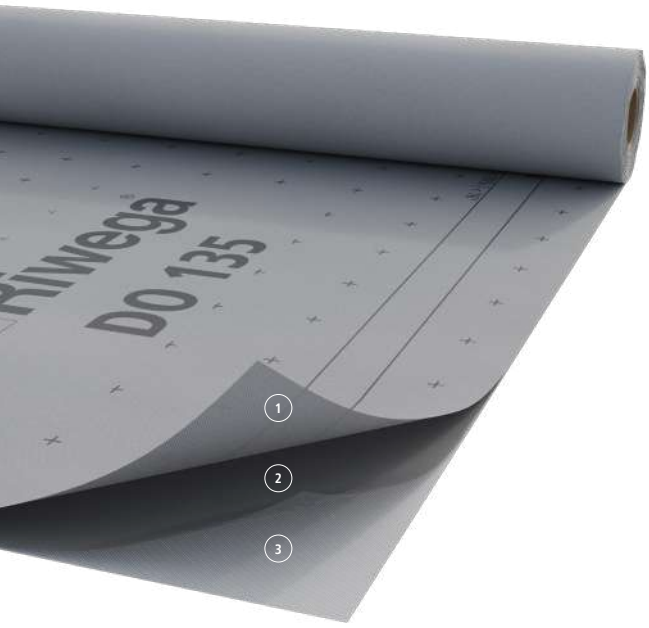
Riwega Srl is not responsible for negligent and improper use of its products

DO 135

QUICK OVERVIEW: STRENGTHS

The 100% PP solution with ultra-light grammage

- Highly breathable, water-tight membrane
- The lightest roof membrane which is ideal for wind-tighting ventilated facades with closed joints
- High tearing resistance
- The non-slip surface allows easy laying
- 100% in completely recyclable polypropylene



Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Microporous film in PP
3. Protective layer in PP

Features:

PP 100%

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB** wU-fU

FR DTU **40.29**

IT UNI 11470 **C**

CE EN 13859-1/2

QB T7-007** E1-Sd1-TR2

EPD

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010191	02020313	1,5	50	2250

Technical data sheet

Mass per unit area	EN 1849-2	**135 g/m²**
Thickness		**0,55 mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**270 / 250 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**190 / 200 N**
Fire reaction class	EN 13501-1	**E**
Classification CSTB (FR)**		**E1-Sd1-TR2 (N° 17-007)**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

**the specific data sheet can be found on the website www.riwega.com
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

DO 100

QUICK OVERVIEW: STRENGTHS

The ultra-light grammage solution for walls

- Highly breathable, water-tight membrane
- The lightest membrane for wind-tightening and waterproofing ventilated facades with continuous cladding
- Made of 100% recyclable polypropylene

Features:

Classification:

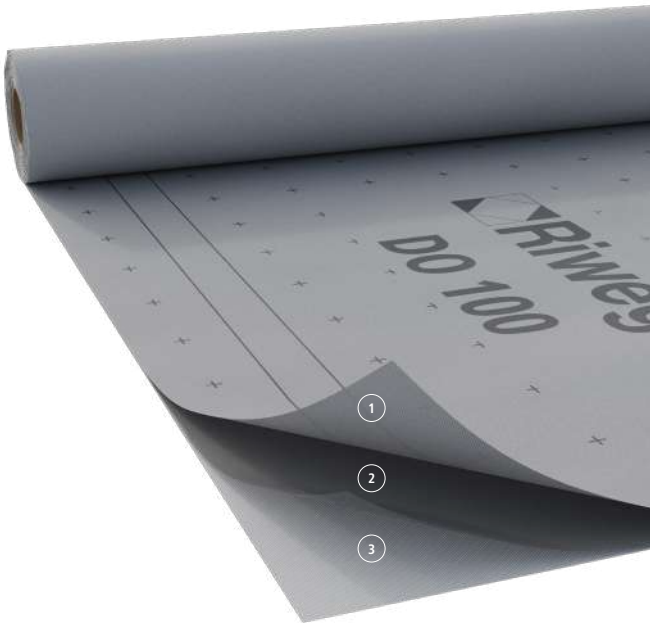
AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB** wU-fU

FR DTU **40.29**

IT UNI 11470 **D**

EN 13859-2



Composition:

Protective UV stabilized, water repellent layer in PP (1)

Microporous film in PP (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**100 g/m²**
Thickness		**0,40 mm**
S_d value	EN ISO 12572	**0,03 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**250 / 150 N/50mm**
Elongation MD/CD*	EN 12311-1	**80 / 120 %**
Tear resistance MD/CD*	EN 12310-1	**120 / 150 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +80°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
020101860	-	3,0	50	4500

*MD = longitudinal CD = transversal

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Separation layers for metal coverings

The structured separation layers ensure a regular discharge of the condensation water between the metal cover and the waterproof roofing membrane. The "micro-ventilation" guarantees the condensate's drying and reduces significantly the "rumble effect" of raindrops and hailstones. The separation layer has also the function to separate the metal covering from the substructure, thus avoiding corrosion damage.

Riwega's separation layers

The structured separation layers of Drenlam Riwega differ in the different raw materials:

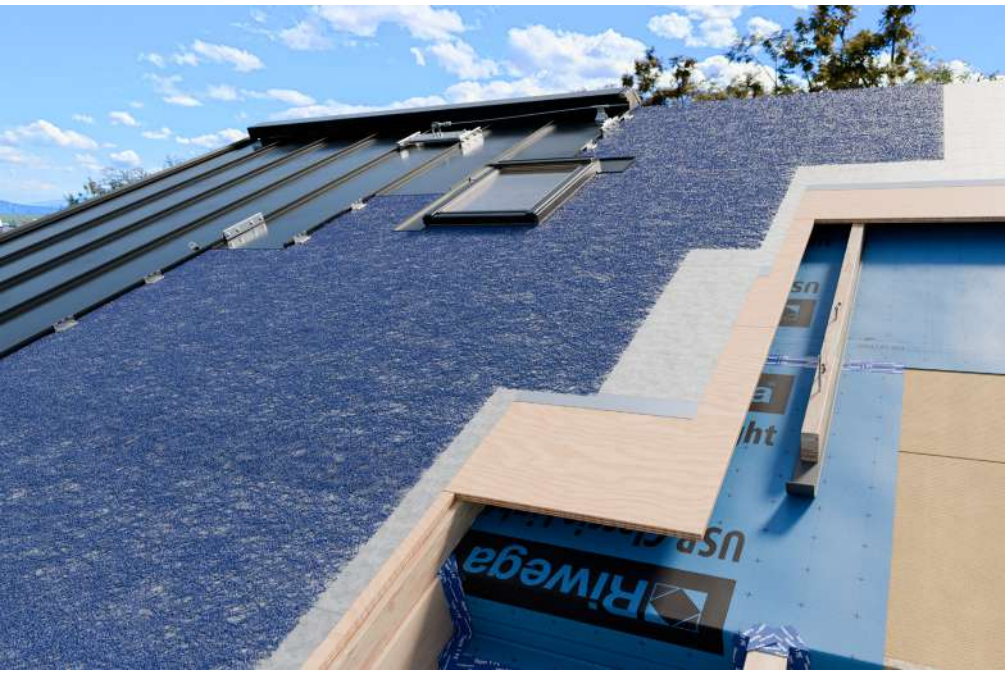
A) **USB Drenlam Diff TOP SK - USB Drenlam Light**

The structured separation layer USB Drenlam Diff TOP SK and USB Drenlam Light is made of eight millimetres high, UV stabilized PP monofilaments with Carbon Black. Only pure virgin materials are used for their production, to obtain a structured separation layer without the addition of recycled materials.

B) **USB Drenlam Bluetech**

Only pure virgin materials are used for the production of the USB Drenlam Bluetech to obtain a structured separation layer without the addition of recycled materials; this guarantees a particularly high compressive strength of the 14 mm high monofilaments and excellent UV protection. Thanks to the excellent technical and mechanical properties and increased free space between the metal roof and the substructure, USB Drenlam Bluetech is one of the best separation layers for metal roofs. The special height of USB Drenlam Bluetech ensures optimal air circulation and drainage between the substructure and the roof. Moisture and condensation are eliminated and white rust is avoided. USB Drenlam Bluetech can be installed under any metal cover and, thanks to its high compressive strength, it offers reliable protection against any deformation of the metal coating.

USB Drenlam Bluetech



QUICK OVERVIEW: STRENGTHS

Noise preventing evolution which guarantees perfect drainage

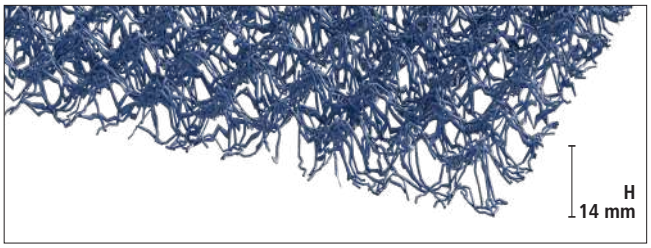
- Separation layer for metal roofs
- High resistance to compressive loads like snow and photovoltaic panels
- Three-dimensional "blister" structure for better drainage of condensed water
- 100% virgin PP (non-recycled) for guaranteed extended durability

Features:

Classification:

CE
EN 13859-1

EPD



Composition:

Three-dimensional netting in PP with neutral masterbatch (1)

Technical data sheet

Mass per unit area	EN 1849-2	**450 g/m²**
Thickness		**14 mm**
Void ratio		**min. 95 %**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-30°C / +90°C**
0 kPa	0 kg/m²	**14,5 mm (±10%)**
2 kPa	200 kg/m²	**13,6 mm (±10%)**
5 kPa	500 kg/m²	**13,2 mm (±10%)**
10 kPa	1000 kg/m²	**12,6 mm (±10%)**
15 kPa	1500 kg/m²	**11,8 mm (±10%)**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064022	-	1,25	20	150

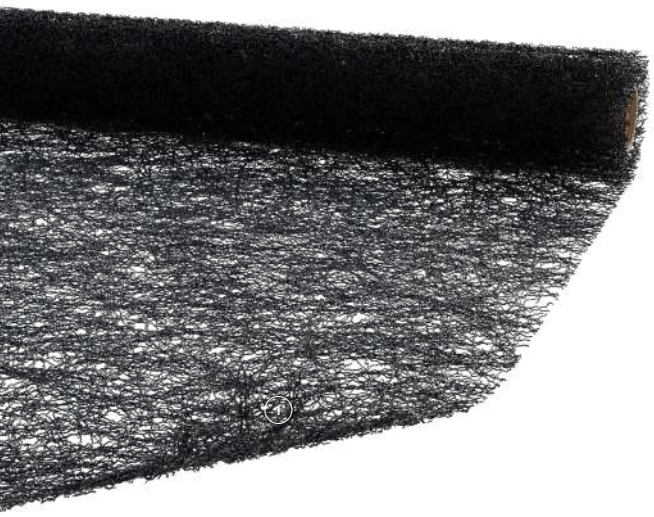
Note: due to the increased thickness, for a correct installation, use a "high-staple" fastening system (h=38mm)
Riwega Srl is not responsible for negligent and improper use of its products

USB Drenlam Light

QUICK OVERVIEW: STRENGTHS

Universal sounddeadening layer in 100% polypropylene

- Separation layer for metal roofs
- Great sound-deadening effect
- Guarantees an optimal micro ventilation for the evacuation of condensation
- 100% virgin PP (non-recycled) for guaranteed extended durability

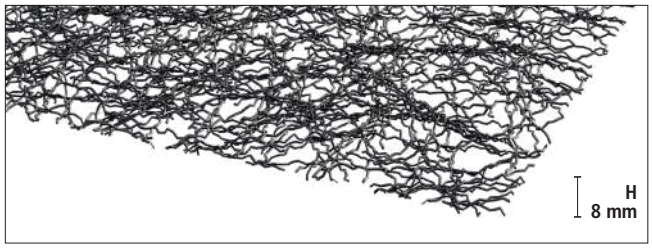


Features:

10 years guarantee · PP 100%

Classification:

CE EN 13859-1 · EPD



Composition:

(1) Three-dimensional structure in PP with carbon black

Technical data sheet

Mass per unit area	EN 1849-2	**350 g/m²**
Thickness		**8 mm**
Tensile strength MD/CD*	EN ISO 12311-1	**75 / 22 N/50mm**
Elongation MD/CD*	EN ISO 12311-1	**40 / 40 %**
Void ratio		**min. 95 %**
Noise reduction	EN ISO 712-2	**ΔLW 28 dB**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064010	-	1,25	28	315

*MD = longitudinal CD = transversal

USB Drenlam Diff TOP SK

QUICK OVERVIEW: STRENGTHS

Stops noise and condensation

- Separation layer for metal roofs
- Unique because of the double integrated adhesive tape (TOP SK)
- Guarantees an optimal micro ventilation for the evacuation of condensation
- 100% virgin PP (non-recycled) for guaranteed extended durability

Features:

10 years guarantee

PP 100%

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

DE ZVDH **UDB USB**

FR DTU **40.29**

IT UNI 11470 **A**

CE EN 13859-1

EPD

Composition:

Three-dimensional netting in PP with carbon black (1)

Protective UV stabilized, water repellent layer in PP (2)

Functional film in PP (3)

Protective layer in PP with integrated adhesive tape (4)

Silicone liner (5)

Technical data sheet

Mass per unit area	EN 1849-2	**500 (150+350) g/m²**
Thickness		**8,75 (0,75+8) mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**300 / 190 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**150 / 190 N**
Void ratio		**min. 95 %**
Noise reduction	EN ISO 712-2	**ΔLW 28 dB**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
-	02064011	1,5	24	324

*MD = longitudinal CD = transversal

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Quality Control and Product Development

On a daily basis, our quality control department carries out constant and rigorous conformity tests, in full compliance with European reference standard. This occurs in order to ensure that every product placed on the market meets precise durability and performance requirements that are essential to us. By performing continuous controls throughout the whole process, we are able to maintain high standards of production, enabling us to reduce waste, optimize investment and increase customer satisfaction. Quality control is not limited to the production stage, but starts from the rigorous selection of raw materials until the finished product is placed on the market and delivered to the customer.

There is a variety of tests carried out in production, and this depends on the type of material and its specific function. Therefore, we talk about artificial aging tests to verify the durability of the performance over time according to the relevant harmonized standards.

These tests involve the verification of various performances such as, for example, water impermeability, water vapour diffusion capacity, mechanical tensile strength and nail tear strength, reaction to fire, resistance to UV radiation, and many others. So, through quality control we provide high-performance and durable products, which allows us to pursue our commitment to sustainability; a value that sets us apart.

The wind-tightness protects the facade insulation from cold and hot outside air so that it cannot flow into the thermal insulation. The facade membrane must therefore always be installed outside or above the thermal insulation.

A ventilated facade brings many benefits; one of the most important is the improvement and maintenance of the overall thermo-hygrometric performance of the thermal insulation package. To ensure this performance is sustained, the insulation on the outer surface must be protected with a waterproof, breathable and windproof membrane. This membrane keeps the thermal insulation dry and protects it from external (rain and wind).
In turn, to maintain its performance, the membrane must resist a range of external influences: UV rays, high temperatures, temperature fluctuations and - until now little considered - even fire.
This last aspect, fire, has often caused problems with fires on facades in the recent past. These problems have often been triggered by trivial causes, such as a short circuit in an electrical or photovoltaic system, or by flying sparks from improperly maintained chimneys; in these cases, contact with combustible materials can start a fire that quickly spreads to the facade thanks to the ventilation/ventilation of the insulation package. Often with tragic consequences!

The Riwega solution for ventilated facades
The breathable, windproof, rainproof, fire resistant, membranes for the permanent protection of the building envelope differ in two main characteristics:

- Multi-layer membrane, UV stable, breathable, for use on a facade with open joints;
- Breathable, multi-layer windproof membrane for use on a ventilated facade with closed joints;
  These are breathable, wind and rainproof membranes for permanent protection of the building envelope;
- Multi-layer, UV-stable, breathable and fire resistant membrane.

Windtop UV Fire A2 50/225

QUICK OVERVIEW: STRENGTHS

Fire resistance inside ventilated facade

- Breathable waterproofing membrane for ventilated facades
- Class A2-s1,d0 reaction to fire
- Ideal membrane for water-proof and wind-tight venti-lated facades with open joints
- Black color for an optimal aesthetical impact
- UV resistance for joints up to 50 mm

Features:

Classification:

AT Önorm B 4119 Önorm B 3661 Typ I

IT UNI 11470 A

CE EN 13859-2

Composition:

1. Special UV-coating
2. Fibre glass

Technical data sheet

Mass per unit area	EN 1849-2	**225 g/m²**
Thickness		**0,23 mm**
S_d value	EN ISO 12572	**0,09 m**
Water vapour permeability	EN ISO 12572	**~ 500 g/m²/24 h**
Air pemeability	EN 12114	**<0,006 m³/(m²h 50Pa)**
Resistance to water passage	EN 1928 (Met. A)	**W2**
Tensile strength MD/CD*	EN 12311-1	**4200 / 3100 N/50mm**
Elongation MD/CD*	EN 12311-1	**6 / 5 %**
Tear resistance MD/CD*	EN 12310-1	**290 / 390 N**
Fire reaction class	EN 13501-1	**A2-s1,d0**
UV stability	**stable (joints up to max. 50 mm - max. 50 %)**	
Weathering without final cladding		**3 months**
Temperature resistance		**-40°C / +100°C (for short times max. +180°C)**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010343	-	1,5	50	2700

*MD = longitudinal CD = transversal

Windtop UV Fire B 50/210

QUICK OVERVIEW: STRENGTHS

Maximum protection with joints up to 50 mm

- Breathable waterproofing membrane for ventilated facades
- Ideal membrane for water-proof and wind-tight venti-lated facades with open joints
- UV resistance for joints up to 50 mm
- Increased mass per unit area for improved mechanical resistance

Features:

10 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 Typ I

IT UNI 11470 A

CE EN 13859-2

EPD

new product

Composition:

UV stable PUR functional film (1)

Protective layer in PET (2)

Technical data sheet

Mass per unit area	EN 1849-2	**210 g/m²**
Thickness		**0,61 mm**
S_d value	EN ISO 12572	**0,1 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Air pemeability	EN 12114	**<0,08 m³/(m²h 50Pa)**
Watern column	EN 20811	**>300 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**380 / 420 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 55 %**
Tear resistance MD/CD*	EN 12310-1	**220 / 210 N**
Fire reaction class	EN 13501-1	**B-s1,d2**
UV stability	**stable (joints up to max. 50 mm - max. 40 %)**	
Weathering without final cladding		**6 months**
Temperature resistance		**-40°C / +80°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010300	02020307	1,5	50	1500
020103000	-	3,0	30	1800

*MD = longitudinal CD = transversal

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Windtop UV Fire B 30/120

QUICK OVERVIEW: STRENGTHS

Perfect combination of lightness and fire resistance

- Breathable waterproofing membrane for ventilated facades
- Class B-s1,d0 reaction to fire
- Ideal membrane for water-proof and wind-tight venti-lated facades with open joints
- The lightest, highly UV-resistant

new product

Features:

Classification:

Composition:

1. UV stable PUR functional film
2. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010340	02020306	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**120 g/m²**
Thickness		**0,42 mm**
S_d value	EN ISO 12572	**0,08 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Air pemeability	EN 12114	**<0,004 m³/(m²h 50Pa)**
Watern column	EN 20811	**>500 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**150 / 115 N/50mm**
Elongation MD/CD*	EN 12311-1	**100 / 100 %**
Tear resistance MD/CD*	EN 12310-1	**140 / 180 N**
Fire reaction class	EN 13501-1	**B-s1,d0**
UV stability	**stable (joints up to max. 30 mm - max. 30 %)**	
Weathering without final cladding		**3 months**
Temperature resistance		**-40°C / +80°C**

*MD = longitudinal CD = transversal

Windtop UV 30/160

QUICK OVERVIEW: STRENGTHS

Protection that doesn't fear UV rays

- Waterproof breathable membrane
- The special polyurethane coating makes it particularly practical and resistant to UV rays
- Ideal membrane for water-proof and wind-tight thermal insulation in ventilated facades with open joints
- Black color for a low aesthetical impact

Features:

Classification:

AT Önorm B 4119 Önorm B 3661 Typ I

IT UNI 11470 B

CE EN 13859-2

Composition:

UV stable PUR functional film (1)

Protective layer in PET (2)

Technical data sheet

Mass per unit area	EN 1849-2	**160 g/m²**
Thickness		**0,50 mm**
S_d value	EN ISO 12572	**0,14 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Air pemeability	EN 12114	**<0,004 m³/(m²h 50Pa)**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**300 / 170 N/50mm**
Elongation MD/CD*	EN 12311-1	**25 / 30 %**
Tear resistance MD/CD*	EN 12310-1	**130 / 160 N**
Fire reaction class	EN 13501-1	**E**
UV stability	**stable (joints up to max. 30 mm - max. 40 %)**	
Weathering without final cladding		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010301	02020301	1,5	50	1500

*MD = longitudinal CD = transversal

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Windtop UV 30/210

QUICK OVERVIEW: STRENGTHS

UV resistance with increased weight

- Waterproof breathable membrane
- Increased mass per unit area for improved mechanical resistance
- Ideal membrane for water-proof and wind-tight thermal insulation in ventilated facades with open joints
- Black color for a low aesthetical impact
- Available in 1,5 m and 3 m version

Features:

Classification:

AT Önorm B 4119 Önorm B 3661 Typ I

IT UNI 11470 A

CE EN 13859-2

EPD

Composition:

1. UV stable PUR functional film
2. Protective layer in PET

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
020103015	-	1,5	50	1500
020103012	-	3,0	50	3000

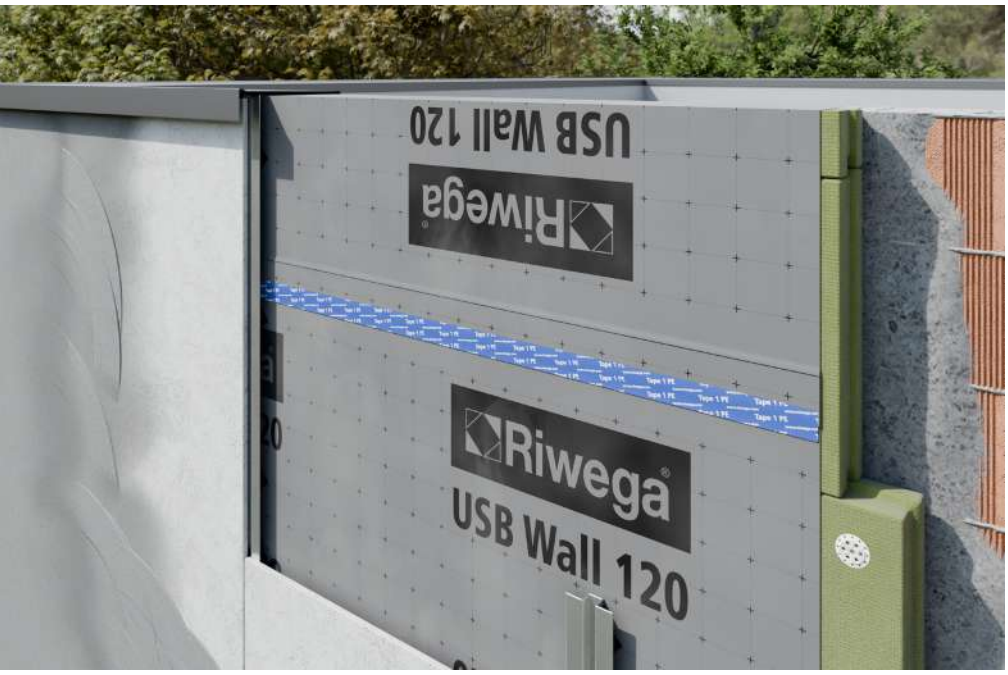
Technical data sheet

Mass per unit area	EN 1849-2	**210 g/m²**
Thickness		**0,54 mm**
S_d value	EN ISO 12572	**0,15 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Air pemeability	EN 12114	**<0,001 m³/(m²h 50Pa)**
Watern column	EN 20811	**>300 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**360 / 250 N/50mm**
Elongation MD/CD*	EN 12311-1	**20 / 25 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 280 N**
Fire reaction class	EN 13501-1	**E**
UV stability	**stable (joints up to max. 30 mm - max. 30 %)**	
Weathering without final cladding		**3 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

USB Wall 120



QUICK OVERVIEW: STRENGTHS

The essential membrane for ventilated facades with continuous cladding

- Highly breathable, water-tight membrane
- Guarantees wind-tightness of the insulation of ventilated facades with continuous cladding
- Available in 3m height to speed up laying time
- Made of 100% recyclable polypropylene

Features:

10 years guarantee

Classification:

AT Önorm B 4119 Önorm B 3661 **Typ I**

CH SIA 232-1 **UD EB-NB** wU-fU

FR DTU **40.29**

IT UNI 11470 **D**

CE EN 13859-2

EPD

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Functional film in PP (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**120 g/m²**
Thickness		**0,65 mm**
S_d value	EN ISO 12572	**0,02 m**
Water vapour permeability	EN ISO 12572	**~ 1000 g/m²/24 h**
Air pemeability	EN 12114	**<0,009 m³/(m²h 50Pa)**
Watern column	EN 20811	**>200 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**260 / 155 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**105 / 140 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010090	02020121	1,5	50	1500
020100900	-	3,0	50	3000

*MD = longitudinal CD = transversal

Membranes for ventilated façades

Technical data sheet	Windtop UV Fire A2 50/225	Windtop UV Fire B 50/210
	Fire resistance inside ventilated facade	Maximum protection with joints up to 50 mm
		
Code 1,5 m	02010343	02010300
Code 1,5 m TOP SK**	-	02020307
Code 3,0 m	-	020103000
Material	fibre glass and black coating	PET.PU
Film	functional coating	functional coating
Mass per unit area	225 g/m²	210 g/m²
Length	50 m	50 m (30 m for code 3,0 m)
S_d value	0,09 m	0,1 m
Tensile strength MD/CD*	4200 / 3100 N/50mm	380 / 420 N/50mm
Elongation MD/CD*	6 / 5 %	40 / 55 %
Tear resistance MD/CD*	290 / 390 N	220 / 210 N
Watern column	-	>300 cm
Resistance to water passage	W2	W1
Air pemeability	<0,006 m³/(m²h 50Pa)	<0,08 m³/(m²h 50Pa)
Fire reaction class	A2-s1,d0	B-s1,d2
UV stable	with joints up to max. 50 mm max. 50 %	with joints up to max. 50 mm max. 40 %
Temperature resistance	-40°C / +100°C (max. +180°C for short times)	-40°C / +80°C

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

Windtop UV Fire B 30/120	Windtop UV 30/160	Windtop UV 30/210	USB Wall 120
Perfect combination of lightness and fire resistance	UV resistance with increased weight	Protection that doesn't fear UV rays	The essential membrane for facades with continuous cladding
			
02010340	02010301	020103015	02010090
02020306	02020301	-	02020121
-	-	020103012	020100900
PP.TPU	PUR.PET	PUR.PET	PP.PP.PP
functional coating	UV50 PUR	PUR	PP
120 g/m^2	160 g/m^2	210 g/m^2	120 g/m^2
50 m	50 m	50 m	50 m
0,08 m	0,14 m	0,15 m	0,02 m
150 / 115 N/50mm	300 / 170 N/50mm	360 / 250 N/50mm	260 / 155 N/50mm
100 / 100 %	25 / 30 %	20 / 25 %	60 / 70 %
140 / 180 N	130 / 160 N	180 / 280 N	105 / 140 N
>500 cm	>200 cm	>300 cm	>200 cm
W1	W1	W1	W1
<0,004 m^3/(m^{2}h 50Pa)	<0,004 m^3/(m^{2}h 50Pa)	<0,001 m^3/(m^{2}h 50Pa)	<0,009 m^3/(m^{2}h 50Pa)
B-s1,d0	E	E	E
with joints up to max. 30 mm max. 30 %	with joints up to max. 30 mm max. 30 %	with joints up to max. 30 mm max. 40 %	-
-40°C / +80°C	-40°C / +100°C	-40°C / +100°C	-40°C / +100°C

Superior Line

Vapour control layers with linear S_d value

R2

The vapour control layer, with airtight characteristics, has to be installed on the inside of the insulating package on the building envelope. The aim is to avoid hot airflow into the insulation and to regulate the migration of vapour, thus avoiding damages caused by condensation.

Superior Line

Riwega's vapour control layers with linear S_d value

Riwega produces vapour control layers for the entire building envelope, both in light versions for indoor use and in heavier versions to be used above the roof structure and walkable for the subsequent working steps. Depending on the technical requirements, Riwega offers vapour control layers with a fixed S_d value of 2 m, 10 m and 20 m. Thanks to this range of proposals, we can provide the optimal solution for a perfect building structure with controlled vapour diffusion in any construction situation. The products in the range differ in the following compositional characteristics:

A) **Raw material:**
Various high-quality raw materials are used to obtain products with different technical characteristics and to satisfy the offered guarantee.

B) **Production process:**
To couple these high-quality long-lasting raw materials and make them functional requires a technologically complex and specially prepared production process.

C) **Mass per unit area:**
The reduced weight of vapour control layers for inside walls is a fundamental factor for a simple, rapid and professional installation of the airtight layer; at the same time, to resist any insufflation of insulating material, tensile strength, rigidity and elongation features are required. For external installation on the roof structure (under the insulation) the mass per unit area of the product must be high, to guarantee mechanical and abrasion resistances so that they can be walked on and loaded mechanically.

USB Micro Strong

QUICK OVERVIEW: STRENGTHS

Top mechanical resistance

- Vapour control layer
- High tearing resistance
- Top abrasion resistance also when the product is laid on rough surfaces
- Regulates the vapour flow
- Ideal as a temporary waterproofing system during the different working phases on the working site

Features:

Classification:

CH SIA 232-1 VO | FR DTU 31.2 | IT UNI 11470 A | CE EN 13984 | ÉMISSIONS DANS L'AIR INTÉRIEUR A+

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Functional film in PP (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**230 g/m²**
Thickness		**1,06 mm**
S_d value	EN ISO 12572	**2 m**
Water vapour permeability	EN ISO 12572	**~ 15 g/m²/24 h**
Watern column	EN 20811	**>900 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**380 / 300 N/50mm**
Elongation MD/CD*	EN 12311-1	**50 / 65 %**
Tear resistance MD/CD*	EN 12310-1	**300 / 390 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030195	02020191	1,5	50	1500

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

USB Micro

QUICK OVERVIEW: STRENGTHS

The first, the original

- Vapour control layer
- Regulates the passage of vapour
- High mechanical resistance
- Ideal also as a temporary waterproofing system during the different working phases on the working site
- More than 25 years of history in the market
- Great quality/price ratio

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Functional film in PP
3. Protective layer in PP

Features:

15 years guarantee

Classification:

CH SIA 232 VU-VO | FR DTU 31.2 | IT UNI 11470 B | CE EN 13984 | Emissions dans l'air intérieur A+

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030140	02020141	1,5	50	1500
020301400	-	3,0	50	3000

Technical data sheet

Mass per unit area	EN 1849-2	**155 g/m²**
Thickness		**0,78 mm**
S_d value	EN ISO 12572	**2 m**
Water vapour permeability	EN ISO 12572	**~ 15 g/m²/24 h**
Watern column	EN 20811	**>550 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**310 / 240 N/50mm**
Elongation MD/CD*	EN 12311-1	**70 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**190 / 230 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

USB Micro Light

QUICK OVERVIEW: STRENGTHS

The lightweight and handy solution for the inside

- Vapour control layer
- Ideal to be laid as inside protection of the wooden wall or ceiling structure
- Easy to be laid thanks to its semi-transparency
- Regulates the passage of vapour and guarantees a perfect wind-tight building envelope

Features:

15 years guarantee

Classification:

CH SIA 232-1 VU-VO G+R

FR DTU 31.2

IT UNI 11470 D

CE EN 13984

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Functional film in PE (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**120 g/m²**
Thickness		**0,57 mm**
S_d value	EN ISO 12572	**10 m**
Water vapour permeability	EN ISO 12572	**~ 3 g/m²/24 h**
Watern column	EN 20811	**>400 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**210 / 160 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 220 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030115	-	1,5	50	1500
020301150	-	3,0	50	3000

*MD = longitudinal CD = transversal

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USB Micro 230/20

QUICK OVERVIEW: STRENGTHS

Low breathability with high mechanical resistance

- Vapour control layer
- Indicated to be laid under insulating materials with low breathability
- High tearing resistance
- Indicated for installation in buildings with high water vapour concentration
- Ideal also as a temporary waterproofing system during the different building phases

Features:

Classification:

CH SIA 232-1 VO | FR DTU 31.2 | IT UNI 11470 A | CE EN 13984 | Emissions dans l'air intérieur A+

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Functional film in PP
3. Protective layer in PP

Technical data sheet

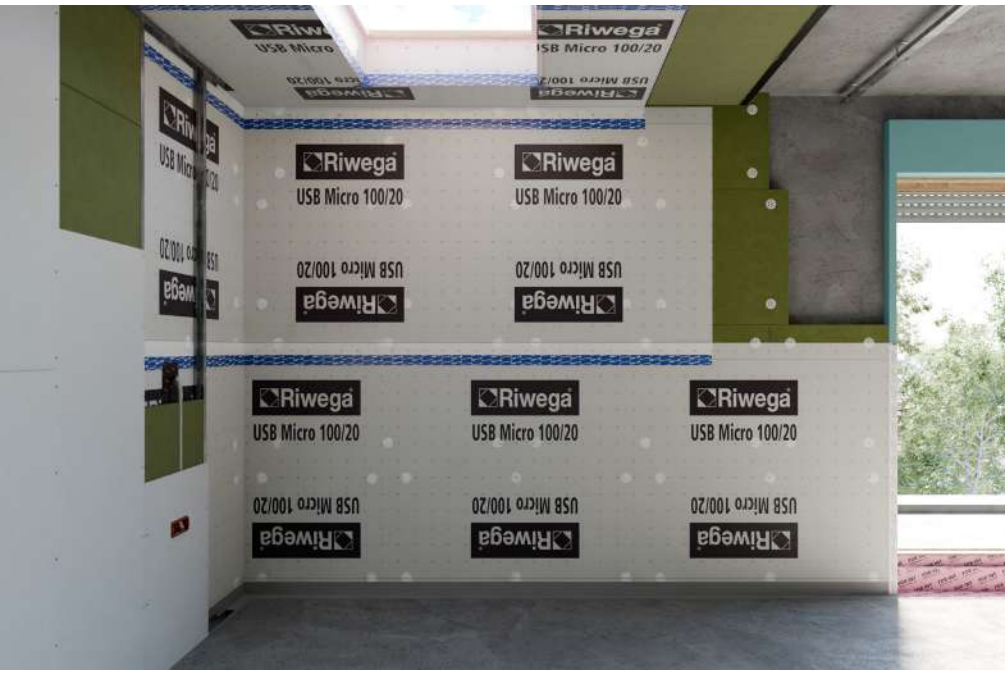
Mass per unit area	EN 1849-2	**220 g/m²**
Thickness		**1,06 mm**
S_d value	EN ISO 12572	**20 m**
Water vapour permeability	EN ISO 12572	**~ 1,5 g/m²/24 h**
Watern column	EN 20811	**>900 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**400 / 280 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**250 / 320 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030230	02020126	1,5	50	1500

*MD = longitudinal CD = transversal

USB Micro 100/20



QUICK OVERVIEW: STRENGTHS

Ultra-light with low breathability

- Vapour control layer
- Ideal as an inner cladding of the installed insulating material between wall and ceiling
- Easy to be laid thanks to its semi-transparency
- Suitable to be laid in buildings with high vapour concentration
- Regulates the passage of vapour and guarantees a perfect wind-tight building envelope

Features:

15 years guarantee

Classification:

CH SIA 232-1 VU

FR DTU 31.2

IT UNI 11470 D

CE EN 13984

ÉMISSIONS DANS L'AIR INTÉRIEUR A+

Composition:

Functional film in PE (1)

Protective UV stabilized, water repellent layer in PP (2)

Technical data sheet

Mass per unit area	EN 1849-2	**100 g/m²**
Thickness		**0,42 mm**
S_d value	EN ISO 12572	**20 m**
Water vapour permeability	EN ISO 12572	**~ 1,5 g/m²/24 h**
Watern column	EN 20811	**>400 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**180 / 120 N/50mm**
Elongation MD/CD*	EN 12311-1	**65 / 70 %**
Tear resistance MD/CD*	EN 12310-1	**80 / 90 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**4 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030143	-	1,5	50	1500
020301430	-	3,0	50	3000

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

Vapour control layers with linear S_d value

R2

Scheda tecnica	USB Micro Strong	USB Micro
	Top mechanical resistance	**The first, the original**
		
Code 1,5 m	**02030195**	**02030140**
Code 1,5 m TOP SK**	**02020191**	**02020141**
Code 3,0 m	**-**	**020301400**
Code 3,0 m TOP SK**	**-**	**-**
Material	**PP.PP.PP**	**PP.PP.PP**
Mass per unit area	**230 g/m²**	**155 g/m²**
Semitransparency	**NO**	**NO**
Length	**50 m**	**50 m**
S_d value	**2 m**	**2 m**
Tensile strength MD/CD*	**380 / 300 N/50mm**	**310 / 240 N/50mm**
Elongation MD/CD*	**50 / 65 %**	**70 / 80 %**
Tear resistance MD/CD*	**300 / 390 N**	**190 / 230 N**
Water tightness	**passed**	**passed**
Fire reaction class	**E**	**E**
Emissions	**A+ / AgBB**	**A+ / AgBB**
UV stability	**4 months**	**4 months**
Temperature resistance	**-40°C / +100°C**	**-40°C / +100°C**

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

USB Micro Light	USB Micro 230/20	USB Micro 100/20
The lightweight and handy solution for the inside	Low breathability with high mechanical resistance	Ultra-light with low breathability
		
02030115	02030230	02030143
-	02020126	-
020301150	-	020301430
-	-	-
PP.PE.PP	PP.PP.PP	PP.PE
120 g/m²	220 g/m²	100 g/m²
YES	NO	YES
50 m	50 m	50 m
10 m	20 m	20 m
210 / 160 N/50mm	400 / 280 N/50mm	180 / 120 N/50mm
60 / 80 %	60 / 70 %	65 / 70 %
180 / 220 N	250 / 320 N	80 / 90 N
passed	passed	passed
E	E	E
-	A+ / AgBB	A+ / AgBB
4 months	4 months	4 months
-40°C / +100°C	-40°C / +100°C	-40°C / +100°C

Superior Line

Vapour control layers with variable hygrometry

R2

The vapour control layer, with airtight characteristics, has to be installed on the inside of the insulating package on the building envelope. The aim is to avoid hot airflow into the insulation and to regulate the migration of vapour, thus avoiding damages caused by condensation.

Superior Line

Riwega's vapour control layers with variable hygrometry

In addition to the wide range of vapour control layers with fixed S_d value, Riwega has also specialized in producing vapour-sensitive control layers, both in lightweight versions for indoor use and in heavier versions for use as outside protection layers, perfectly walkable for further processing. Depending on the technical requirements, Riwega offers two types of hygrometric-variable vapour control layers: V7 (0.2 to 7 m) and V20 (0.2 to 20 m), according to the specific need for renovation works, warm roofs, flat roofs or in cases of insufficient transpiration of the outermost layers. Thanks to this range of proposals, we can provide the optimal solution for a perfect building structure with controlled vapour diffusion in any construction situation. The products in the range differ in the following compositional characteristics:

A) **Raw material:**
Various high-quality raw materials are used to obtain products with different technical characteristics and to satisfy the offered guarantee.

B) **Production process:**
To couple these high-quality long-lasting raw materials and make them functional requires a technologically complex and specially prepared production process.

C) **Mass per unit area:**
The reduced weight of vapour control layers for inside walls is a fundamental factor for a simple, rapid and professional installation of the airtight layer; at the same time, to resist any insufflation of insulating material, tensile strength, rigidity and elongation features are required. For external installation on the roof structure (under the insulation) the mass per unit area of the product must be high, to guarantee mechanical and abrasion resistances so that they can be walked on and loaded mechanically.

Micro 200 Vario V7

QUICK OVERVIEW: STRENGTHS

The first with variable hygrometry at high grammage

- Vapour control layer with variable hygrometric
- High resistance to tearing and trampling due to heavy grammage
- Easy drying of the bottom side during summer
- Perfect regulation of vapour passage based on temperature and humidity
- Also usable on concrete surfaces

Features:

15 years guarantee

Classification:

CH SIA 232-1 VO

FR DTU 31.2

IT UNI 11470 A

CE EN 13984

new product

Composition:

Protective layer in PP (1)

Functional film in PA (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**200 g/m²**
Thickness		**0,90 mm**
S_d value	EN ISO 12572	**0,2 - 7 m**
Water vapour permeability	EN ISO 12572	**~ 100 - 5 g/m²/24 h**
Watern column	EN 20811	**>80 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**400 / 350 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 50 %**
Tear resistance MD/CD*	EN 12310-1	**250 / 280 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +80°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030148	-	1,5	50	1500

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

Micro 150 Vario V20

QUICK OVERVIEW: STRENGTHS

The upgrade of variable hygrometric

- Vapour control layer with variable hygrometric
- High tearing resistance due to heavy grammage
- Perfect for insufflation
- Perfect regulation of vapour passage based on temperature and humidity
- Easy drying of the bottom side during summer

Features:

Classification:

CH SIA 232-1 VU | FR DTU 31.2 | IT UNI 11470 B | CE EN 13984 | EPD

Composition:

1. Support layer in PET
2. Functional film in PA
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030145	-	1,5	50	1500

Technical data sheet

Mass per unit area	EN 1849-2	**150 g/m²**
Thickness		**0,78 mm**
S_d value	EN ISO 12572	**0,2 - 20 m**
Water vapour permeability	EN ISO 12572	**~ 100 - 1 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**430 / 170 N/50mm**
Elongation MD/CD*	EN 12311-1	**25 / 110 %**
Tear resistance MD/CD*	EN 12310-1	**125 / 200 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

Micro 100 Vario V20

QUICK OVERVIEW: STRENGTHS

The ultra-light layer, able to adopt its hygrometric properties

- Vapour control layer with variable hygrometric
- Ideal as a cladding for inside of wooden structures
- Variable regulation of vapour passage based on temperature and humidity
- Perfect to be used during renovation works on the building envelope

Features:

Classification:

CH SIA 232-1 VU | FR DTU 31.2 | IT UNI 11470 D | CE EN 13984 | ÉMISSIONS DANS L'AIR INTÉRIEUR A+ | AgBB | EPD

Composition:

Functional film in PA (1)

Support layer in PET (2)

Technical data sheet

Mass per unit area	EN 1849-2	**100 g/m²**
Thickness		**0,30 mm**
S_d value	EN ISO 12572	**0,2 - 20 m**
Water vapour permeability	EN ISO 12572	**~ 100 - 1 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**210 / 190 N/50mm**
Elongation MD/CD*	EN 12311-1	**35 / 35 %**
Tear resistance MD/CD*	EN 12310-1	**59 / 65 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030144	-	1,5	50	2250
020301440	-	3,0	50	4500

*MD = longitudinal CD = transversal

Micro 90 Vario V7

QUICK OVERVIEW: STRENGTHS

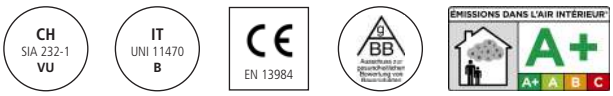
The lightest of our variable vapour control layers

- Vapour control layer with variable hygrometric
- Perfect to be used during renovation works on the building envelope
- Variable regulation of vapour passage based on temperature and humidity
- Easy to be laid thanks to its semi-transparency

new product

Features:

Classification:



Composition:

1. Functional film in PA
2. Support layer in PET

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030147	-	1,5	50	2250

Technical data sheet

Mass per unit area	EN 1849-2	**90 g/m²**
Thickness		**0,40 mm**
S_d value	EN ISO 12572	**0,2 - 7 m**
Water vapour permeability	EN ISO 12572	**~ 100 - 4 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**200 / 190 N/50mm**
Elongation MD/CD*	EN 12311-1	**25 / 30 %**
Tear resistance MD/CD*	EN 12310-1	**50 / 40 N**
Fire reaction class	EN 13501-1	**E**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

Micro Vario NET V20

QUICK OVERVIEW: STRENGTHS

Better performance due to variable hygrometry

- Vapour control layer with variable hygrometric
- High tear strength due to built-in reinforcement fabric
- Semi-transparent, for easy installation on timber frame constructions
- Perfect regulation of vapour transmission in terms of temperature and humidity

new product

Features:

10 years guarantee

EN ISO 16000-9

Classification:

AT Önorm B 4119 Önorm B 3661 Typ I

CH SIA 232-1 VU

FR DTU 31.2

IT UNI 11470 D

CE EN 13984

EPD

Composition:

Functional film in PA (1)

PET reinforcement mesh (2)

PP non-woven fabric (3)

Technical data sheet

Mass per unit area	EN 1849-2	**115 g/m²**
Thickness		**0,35 mm**
S_d value	EN ISO 12572	**0,2 - 25 m**
Water vapour permeability	EN ISO 12572	**~ 100 - 1 g/m²/24 h**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**200 / 200 N/50mm**
Elongation MD/CD*	EN 12311-1	**10 / 10 %**
Tear resistance MD/CD*	EN 12310-1	**150 / 150 N**
Fire reaction class	EN 13501-1	**E**
UV stability	UNI 11470	**2 weeks**
Temperature resistance		**-40°C / +80°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030146	-	1,5	50	1500

*MD = longitudinal CD = transversal

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Vapour control layers with variable hygrometry

Technical data sheet	Micro 200 Vario V7	Micro 150 Vario V20
	The first with variable hygrometry at high grammage	The upgrade of variable hygrometric
		
Code 1,5 m	02030148	02030145
Code 1,5 m TOP SK**	-	-
Code 3,0 m	-	-
Code 3,0 m TOP SK**	-	-
Material	PP.PA.PP	PET.PA.PP
Mass per unit area	200 g/m²	150 g/m²
Semitransparency	NO	NO
Length	50 m	50 m
Reinforcing mesh	NO	NO
S_d value	0,2 - 7 m	0,2 - 20 m
Tensile strength MD/CD*	400 / 350 N/50mm	430 / 170 N/50mm
Elongation MD/CD*	40 / 50 %	25 / 110 %
Tear resistance MD/CD*	250 / 280 N	125 / 200 N
Water tightness	passed	passed
Fire reaction class	E	E
Emissions	-	-
UV stability	3 months	3 months
Temperature resistance	-40°C / +80°C	-40°C / +100°C

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

Micro 100 Vario V20	Micro 90 Vario V7	Micro Vario NET V20
The ultra-light layer, able to adopt its hygrometric properties	The lightest of our variable vapour control layers	Better performance due to variable hygrometry
		
02030144	02030147	02030146
-	-	-
020301440	-	-
-	-	-
PET.PA	PET.PA	reinforced PA.PP
100 g/m²	90 g/m²	115 g/m²
YES	YES	YES
50 m	50 m	50 m
NO	NO	YES
0,2 - 20 m	0,2 - 7 m	0,2 - 25 m
210 / 190 N/50mm	200 / 190 N/50mm	200 / 200 N/50mm
35 / 35 %	25 / 30 %	10 / 10 %
59 / 65 N	50 / 40 N	150 / 150 N
passed	passed	passed
E	E	E
A+ / AgBB	A+ / AgBB	-
3 months	3 months	2 weeks
-40°C / +100°C	-40°C / +100°C	-40°C / +80°C

Eurostandard Line

Vapour control layers

The vapour control layer, with airtight characteristics, has to be installed on the inside of the insulating package on the building envelope. The aim is to avoid hot airflow into the insulation and to regulate the migration of vapour, thus avoiding damages caused by condensation.

Eurostandard Line

Riwega's vapour control layers

Riwega produces vapour control layers for the entire building envelope, both in light versions for indoor use and in heavier versions to be used above the roof structure and walkable, for the subsequent building phases. Depending on the technical requirements, Riwega offers steam brake screens with a fixed S_d value of 2 m, 5 m, 6 m and 20 m. The products in the range differ in the following compositional characteristics:

A) **Raw material:**
The vapour barrier layer is made of PP non-wovens, which are sufficiently resistant to UV and heat, with non-slip properties to obtain products with different technical characteristics and to meet the legal warranties.

B) **Production process:**
To couple these long-term raw materials and make them functional, a technologically very complex and specially designed production process is required. The entire production process, from the raw material to the finished product, is constantly monitored by our highly qualified production staff.

C) **Mass per unit area:**
By using different thicknesses of the upper and lower coating layer, different weights are obtained. The Eurostandard line vapour control layers weight 140 g/m^2, 150 g/m^2, 155 g/m^2 and 200 g/m^2. This range of materials covers all the mechanical requirements for the creation of layers for controlling the passage of steam and airtightness in various construction situations.

DB 200

QUICK OVERVIEW: STRENGTHS

Easy and effective choice with high grammage

- Vapour control layer
- High tearing resistance
- Regulates the vapour flow
- Ideal as a temporary waterproofing system during the different working phases on the working site

Features:

Classification:

CH SIA 232-1 VO

FR DTU 31.2

IT UNI 11470 A

CE EN 13984

EPD

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Functional film in PP, watertight and lightly breathable (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**200 g/m²**
Thickness		**0,80 mm**
S_d value	EN ISO 12572	**6 m**
Water vapour permeability	EN ISO 12572	**~ 3 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**480 / 330 N/50mm**
Elongation MD/CD*	EN 12311-1	**75 / 120 %**
Tear resistance MD/CD*	EN 12310-1	**260 / 360 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030200	-	1,5	50	1500

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

DTB 150

QUICK OVERVIEW: STRENGTHS

The easy and effective reinforced choice

- Vapour control layer
- High tearing resistance thanks to reinforcing mesh
- Regulates the vapour flow
- Guaranteed non-slip surface during all roof building stages

Features:

Classification:

CH SIA 232 VU-VO | FR DTU 31.2 | IT UNI 11470 B | CE EN 13984 | EPD

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Polyethilene reinforcing mesh
3. Functional film in PP, watertight and lightly breathable
4. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030150	-	1,5	50	2250

Technical data sheet

Mass per unit area	EN 1849-2	**150 g/m²**
Thickness		**0,55 mm**
S_d value	EN ISO 12572	**>5 m**
Water vapour permeability	EN ISO 12572	**~ 4 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**330 / 400 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 50 %**
Tear resistance MD/CD*	EN 12310-1	**350 / 310 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

*MD = longitudinal CD = transversal

DB 155

QUICK OVERVIEW: STRENGTHS

Easy and effective choice with medium grammage

- Vapour control layer
- Light membrane for roofs and resistant membrane for walls
- Regulates the vapour flow
- Ideal also as a temporary waterproofing system during the different working phases on the working site

Features:

Classification:

CH SIA 232 **VU-VO**

FR DTU **31.2**

IT UNI 11470 **B**

CE EN 13984

EPD

Composition:

Protective UV stabilized, water repellent layer in PP (1)

Functional film in PP, watertight and lightly breathable (2)

Protective layer in PP (3)

Technical data sheet

Mass per unit area	EN 1849-2	**155 g/m²**
Thickness		**0,60 mm**
S_d value	EN ISO 12572	**2 m**
Water vapour permeability	EN ISO 12572	**~ 15 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**350 / 230 N/50mm**
Elongation MD/CD*	EN 12311-1	**75 / 115 %**
Tear resistance MD/CD*	EN 12310-1	**185 / 225 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030190	02020311	1,5	50	1500

*MD = longitudinal CD = transversal

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DB 135

QUICK OVERVIEW: STRENGTHS

Easy and effective choice with low grammage

- Vapour control layer
- Regulates the passage of vapour and guarantees a perfect wind-tight building envelope
- Ideal as an inner cladding of the installed insulating material between wall and ceiling
- Easy and quick to install thanks to its light weight

Features:

Classification:

CH SIA 232-1 VU-VO G+R | FR DTU 31.2 | IT UNI 11470 C | CE EN 13984 | EPD

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Functional film in PP, impermeabile e leggermente traspirante
3. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02030135	-	1,5	50	2250

Technical data sheet

Mass per unit area	EN 1849-2	**140 g/m²**
Thickness		**0,30 mm**
S_d value	EN ISO 12572	**20 m**
Water vapour permeability	EN ISO 12572	**~ 1,5 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**250 / 180 N/50mm**
Elongation MD/CD*	EN 12311-1	**50 / 50 %**
Tear resistance MD/CD*	EN 12310-1	**65 / 65 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +90°C**

*MD = longitudinal CD = transversal

Hygrotherm Europe

Hygrotherm Europe is an advanced technical support tool, essential to assist the professional technician or installer in the evaluation of the risk phenomena of surface condensation, mould and interstitial condensation. The result of the calculation will be a report flanked by the product's laying specifications and by graphics from which we can understand the behaviour of the structure at a thermohygrometric level, any problems and solutions to have the best possible solution.

Hygrotherm Europe uses the Wufi® software (developed by the Fraunhofer IBP Institute) specifically for performing hourly hygrothermal simulations in dynamic mode by the UNI EN 15026 standard, and therefore indispensable for evaluating the water content and temperature in the building element for now.

Hygrotherm Europe can be used internationally. The dynamic simulation is supported by the Metonorm software, or a database of meteorological information, such as global radiation, temperature, humidity, rainfall, wind speed and direction and duration of sunshine for any location in the world.

Vapour barriers

The vapour barrier with air tightening qualities, has to be laid on the inside of the building envelope's insulating package. The aim is to prevent hot airflow into the insulation and to block the migration of vapour, thus avoiding damage by condensation. The vapour barrier is used only in cases of extreme necessity, in structures and insulation packages where there is not the slightest possibility of drying out humidity either from the outside or from the inside. The use of vapour barriers with total blocking of vapour migration requires increased room ventilation which can occur either manually (by opening the windows) or automatically through the use of CMV systems (Controlled Mechanical Ventilation); otherwise, the risk of mould or stagnation of humidity on the building's internal surfaces would increase significantly.

Riwega's vapour barriers

Riwega offers vapour barriers for the entire building envelope, both in light versions for indoor use and in heavier versions to be used on the roof structure, which are walkable during the subsequent building phases. Depending on the technical requirements Riwega offers vapour barriers of different constitution:

A) **Synthetic:**
They are based on polyethylene, polyethylene/aluminium, polypropylene/aluminium or fibre glass fabric/aluminium and can be used as barriers on the internal side of walls and false ceilings or under-screed; the PP / ALU version also has an effective Radon barrier function.

B) **Bituminous:**
They are bitumen based, coupled with polypropylene non-woven fabrics or quartz sand; they are normally used as vapour barriers in roofs, or as the last waterproofing layer of the roof formwork, creating under-ventilated planking in packages with double ventilation.

DS Reflex A2/140

QUICK OVERVIEW: STRENGTHS

Fire resistant vapour barrier

- Vapour barrier
- Class A2-s1,d0 reaction to fire
- Reflective surface to improve the performance of the insulation package
- Ideal for perfect air-tightness
- Lightweight and easy to install on vertical walls or ceilings

Features:

Classification:

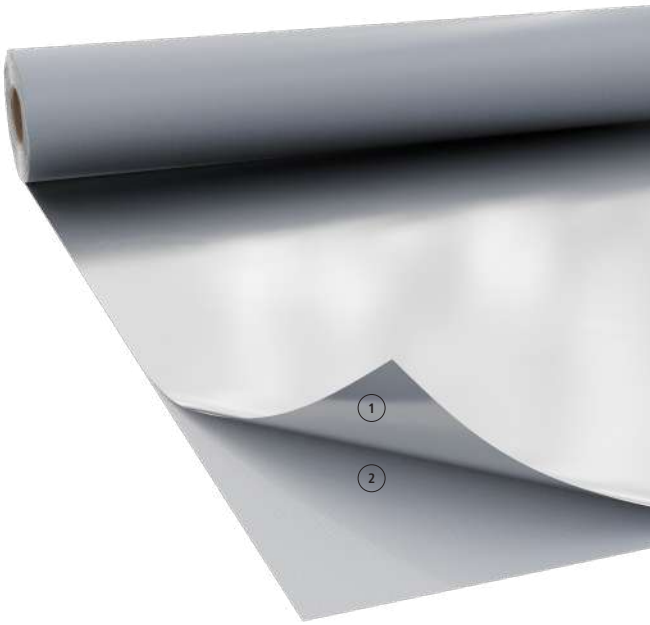
AT Önorm B 4119 Önorm B 3661 Typ I

FR DTU 31.2

IT UNI 11470 C

CE EN 13984

ÉMISSIONS DANS L'AIR INTÉRIEUR A+



Composition:

Aluminium film (1)

Fibre glass (2)

Technical data sheet

Mass per unit area	EN 1849-2	**140 g/m²**
Thickness		**0,10 mm**
S_d value	EN ISO 12572	**>2500 m**
Water vapour permeability	EN ISO 12572	**~ 0,01 g/m²/24 h**
Water tightness	EN 13984	**passed**
Reflection coefficient		**0,95 R**
Emissivity of outer surface (ε)	EN 16012	**0,05**
Tensile strength MD/CD*	EN 12311-1	**1300 / 1200 N/50mm**
Elongation MD/CD*	EN 12311-1	**2,6 / 3,5 %**
Tear resistance MD/CD*	EN 12310-1	**143 / 144 N**
Fire reaction class	EN 13501-1	**A2-s1,d0**
Emissions	CMR regulation	**A+**
	AgBB-scheme 2018	**YES**
UV stability	UNI 11470	**2 weeks**
Temperature resistance		**-40°C / +100°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02010345	-	1,2	50	3840

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

DS 1500 Syn Strong

QUICK OVERVIEW: STRENGTHS

The strongest radon gas shield against trampling

- Vapour barrier
- Certified as a vapour and radon gas barrier
- High tearing resistance
- Top abrasion resistance also when the product is laid on rough surfaces

new product

Features:

Classification:

CH SIA 232-1 VU-VO G+R

FR DTU 31.2

IT UNI 11470 C

CE EN 13984

EMICODE EC1 PLUS very low emission

Composition:

1. Protective layer in PP
2. Film in PE
3. Aluminium film
4. Film in PE
5. Protective layer in PP

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
020640071	-	1,5	50	1500

System accessories on pages 148-194

Technical data sheet

Mass per unit area	EN 1849-2	**200 g/m²**
Thickness		**0,65 mm**
S_d value	EN ISO 12572	**>1500 m**
Water vapour permeability	EN ISO 12572	**~ 0,02 g/m²/24 h**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**380 / 275 N/50mm**
Elongation MD/CD*	EN 12311-1	**80 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**230 / 260 N**
Fire reaction class	EN 13501-1	**E**
Radon gas diffusion (D)	ISO 11665-10	**1,64 x 10^{-14} m^2s^{-1}**
Emissions	EMICODE®	**EC1 PLUS**
UV stability	UNI 11470	**2 weeks**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

DS 1500 Syn

QUICK OVERVIEW: STRENGTHS

Shield against vapour and radon gas

- Vapour barrier
- Certified as a vapour and radon gas barrier
- Ideal for the protection of internal insulation of a reinforced concrete wall
- Reflecting, waterproof, air- and windtight, light and handy vapour barrier

Features:

Classification:

CH SIA 232-1 VU-VO G+R

FR DTU 31.2

IT UNI 11470 C

CE EN 13984

GEV-EMICODE EC1 PLUS sehr emissionsarm

Composition:

Protective layer in PP (1)

Film in PE (2)

Aluminium film (3)

Film in PE (4)

Protective layer in PP (5)

Technical data sheet

Mass per unit area	EN 1849-2	**130 g/m²**
Thickness		**0,45 mm**
S_d value	EN ISO 12572	**>1500 m**
Water vapour permeability	EN ISO 12572	**~ 0,02 g/m²/24 h**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**170 / 110 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 45 %**
Tear resistance MD/CD*	EN 12310-1	**75 / 90 N**
Fire reaction class	EN 13501-1	**E**
Radon gas diffusion (D)	ISO 11665-10	**1,64 x 10^{-14} m^2s^{-1}**
Emissions	EMICODE®	**EC1 PLUS**
UV stability	UNI 11470	**2 weeks**
Temperature resistance		**-40°C / +100°C**

*MD = longitudinal CD = transversal

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Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064007	-	1,5	50	2250

System accessories on pages 148-194

DS 188 ALU

QUICK OVERVIEW: STRENGTHS

The most performing vapour barrier with reflecting effect

- Vapour barrier
- In counter-walls and false-ceilings the reflecting surface increases the internal heat reflection
- High mechanical resistance thanks to its reinforcing mesh
- Minimizes the passage of water vapour and guarantees a perfect airtight building envelope

Composition:

1. Aluminium film
2. PET reinforcing mesh
3. Film in PE

Features:

10 years guarantee

EN ISO 16000-9

Classification:

CH SIA 232-1 VU-VO

FR DTU 31.2

IT UNI 11470 B

CE EN 13984

EPD

Codes and measures

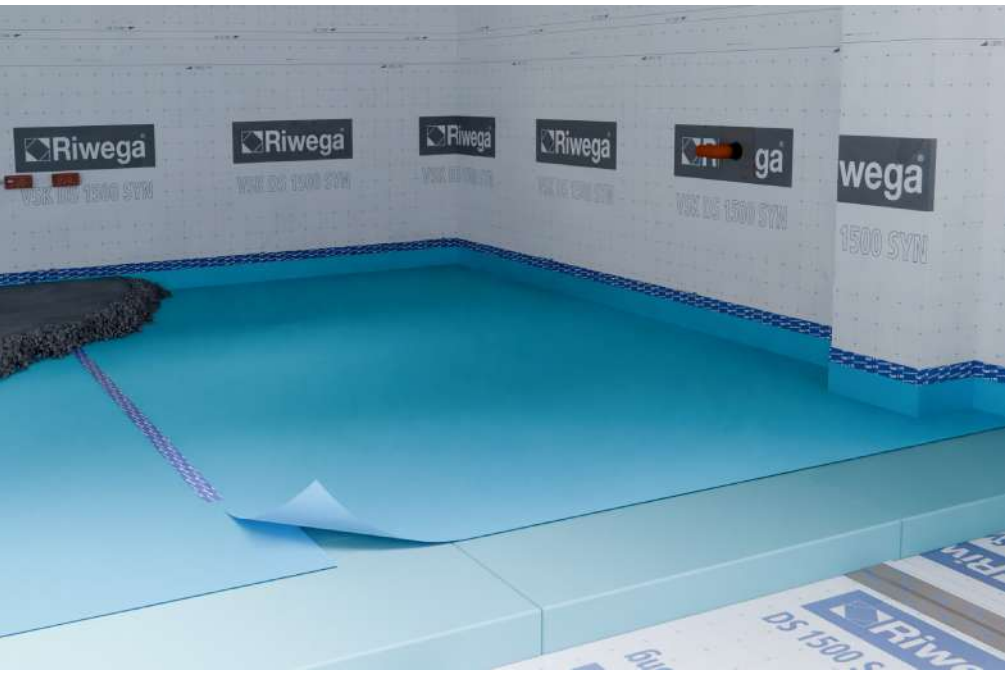
Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064008	-	1,5	50	3000

Technical data sheet

Mass per unit area	EN 1849-2	**170 g/m²**
Thickness		**0,30 mm**
S_d value	EN ISO 12572	**200 m**
Water vapour permeability	EN ISO 12572	**~ 0,2 g/m²/24 h**
Water tightness	EN 13984	**passed**
Reflection coefficient		**~ 0,50 R*** **
Emissivity of outer surface (ε)	EN 15976	**0,524**
Tensile strength MD/CD*	EN 12311-1	**290 / 260 N/50mm**
Elongation MD/CD*	EN 12311-1	**15 / 15 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 180 N**
Fire reaction class	EN 13501-1	**E**
UV stability	UNI 11470	**2 weeks**
Emissions	ISO 16000	**compliant****
Temperature resistance		**-40°C / +80°C**

***derived from mathematical calculation
**CAM (Criteri Ambientali Minimi Edilizia - IT)
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

DS 65 PE



QUICK OVERVIEW: STRENGTHS

The multipurpose barrier 100% in PE

- Vapour barrier
- Only 3 m height available to ease and speed up laying time
- Ideal to be laid under the screeds as a separation and sliding layer
- Minimizes the passage of water vapour and guarantees a perfect airtight building envelope

Features:

10 years guarantee

Classification:

CH SIA 232-1 VU-VO G+R

FR DTU 31.2

IT UNI 11470 B

CE EN 13984

Technical data sheet

Mass per unit area	EN 1849-2	**188 g/m²**
Thickness		**0,20 mm**
S_d value	EN ISO 12572	**140 m**
Water vapour permeability	EN ISO 12572	**~ 0,2 g/m²/24 h**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**175 / 160 N/50mm**
Elongation MD/CD*	EN 12311-1	**500 / 570 %**
Tear resistance MD/CD*	EN 12310-1	**130 / 135 N**
Fire reaction class	EN 13501-1	**E**
UV stability	UNI 11470	**2 weeks**
Emissions	AgBB-scheme 2018	**YES**
Temperature resistance		**-20°C / +80°C**

Composition:

Film in PE (1)

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064006	-	3,0	33	3960

*MD = longitudinal CD = transversal

DS 46 PE

QUICK OVERVIEW: STRENGTHS

The light and handy semi-transparent barrier

- Vapour barrier
- Great mechanical resistance, thanks to the central reinforcing mesh
- Easy to be laid thanks to its semi-transparency
- Minimizes the passage of water vapour and guarantees a perfect airtight building envelope

Features:

Classification:

CH SIA 232-1 VU-VO

FR DTU 31.2

IT UNI 11470 D

CE EN 13984

Composition:

1. Film in PE
2. PET reinforcing mesh
3. Film in PE

Codes and measures

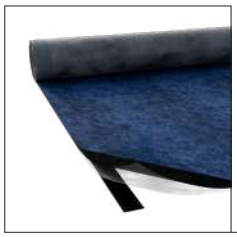
Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02064009	-	1,5	50	6000

Technical data sheet

Mass per unit area	EN 1849-2	**110 g/m²**
Thickness		**0,22 mm**
S_d value	EN ISO 12572	**40 m**
Water vapour permeability	EN ISO 12572	**~ 0,6 g/m²/24 h**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**220 / 190 N/50mm**
Elongation MD/CD*	EN 12311-1	**30 / 35 %**
Tear resistance MD/CD*	EN 12310-1	**155 / 145 N**
Fire reaction class	EN 13501-1	**F**
UV stability	UNI 11470	**2 weeks**
Emissions	ISO 16000	**compliant****
Temperature resistance		**-40°C / +80°C**

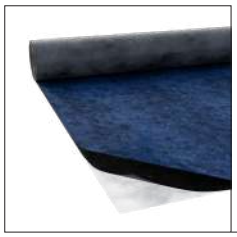
**CAM (Criteri Ambientali Minimi Edilizia - IT)
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

Bituminous vapour barriers



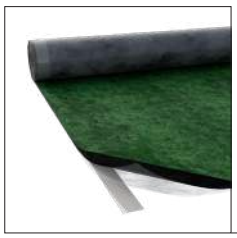
DS 28 750 PP TOP SK

Mass per unit area	EN 1849-2	**700 g/m²**
Thickness		**0,9 mm**
S_d value		**95 m**
TOP SK** glue type		**bituminous**
Tensile strength MD/CD*	EN 12311-1	**530 / 350 N/50mm**
Tear resistance MD/CD*	EN 12310-1	**200 / 200 N**
Code TOP SK**		**02064019**



DS 48 1100 PP / DS 48 1100 PP TOP SK

Mass per unit area	EN 1849-2	**1100 g/m²**
Thickness		**1,1 mm**
S_d value		**152 m**
TOP SK** glue type		**acrylic**
Tensile strength MD/CD*	EN 12311-1	**700 / 440 N/50mm**
Tear resistance MD/CD*	EN 12310-1	**220 / 230 N**
Code / Code TOP SK**		**02064005 / 02064020**



DS 48 1300 TOP SK

Mass per unit area	EN 1849-2	**1300 g/m²**
Thickness		**1,3 mm**
S_d value		**152 m**
TOP SK** glue type		**acrylic**
Tensile strength MD/CD*	EN 12311-1	**730 / 450 N/50mm**
Tear resistance MD/CD*	EN 12310-1	**250 / 250 N**
Code TOP SK**		**02064013**

DS 48 2200 TOP SK PP-S

Mass per unit area	EN 1849-2	**2200 g/m²**
Thickness		**1,8 mm**
S_d value		**213 m**
TOP SK** glue type		**bituminous**
Tensile strength MD/CD*	EN 12311-1	**930 / 540 N/50mm**
Tear resistance MD/CD*	EN 12310-1	**360 / 370 N**
Code TOP SK**		**02064018**

**TOP SK = double integrated adhesive tape
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

Vapour barriers Synthetic

R2

Technical data sheet	DS Reflex A2/140	DS 1500 Syn Strong
	Fire resistant vapour barrier	The strongest radon gas shield against trampling
		
Code 1,5 m	02010345	020640071
Code 1,5 m TOP SK**	-	-
Code 3,0 m	-	-
Code 3,0 m TOP SK**	-	-
Material	fibre glass fabric and pure aluminium	PP.PE.Alu.PE.PP
Mass per unit area	140 g/m^2	200 g/m^2
Semitransparency	NO	NO
Length	50 m	50 m
Thickness	0,10 mm	0,65 mm
Reinforcing mesh	NO	NO
S_d value	>2500 m	>1500 m
Tensile strength MD/CD*	1300 / 1200 N/50mm	380 / 275 N/50mm
Elongation MD/CD*	2,6 / 3,5 %	80 / 80 %
Tear resistance MD/CD*	143 / 144 N	230 / 260 N
Water tightness	passed	passed
Fire reaction class	A2-s1,d0	E
Emissions	A+ / AgBB	EC1^{PLUS}
Radon gas diffusion (D)	-	1,64 x 10^{-14} m^{2}s^{-1}
Temperature resistance	-40°C / +100°C	-40°C / +100°C

*MD = longitudinal CD = transversal

**TOP SK = double integrated adhesive tape

DS 1500 Syn	DS 188 ALU	DS 65 PE	DS 46 PE
Shield against vapour and radon gas	The most performing vapour barrier with reflecting effect	The multipurpose barrier 100% in PE	The light and handy semitransparent barrier
			
02064007	02064008	02064006	02064009
-	-	-	-
-	-	-	-
-	-	-	-
PP.PE.Alu.PE.PP	reinforced PE.Alu	PE	reinforced PE
130 g/m^2	170 g/m^2	188 g/m^2	110 g/m^2
NO	NO	YES	YES
50 m	50 m	33 m	50 m
0,45 mm	0,30 mm	0,20 mm	0,22 mm
NO	YES	NO	YES
>1500 m	200 m	140 m	40 m
170 / 110 N/50mm	290 / 260 N/50mm	175 / 160 N/50mm	220 / 190 N/50mm
60 / 45 %	15 / 15 %	500 / 570 %	30 / 35 %
75 / 90 N	180 / 180 N	130 / 135 N	155 / 145 N
passed	passed	passed	passed
E	E	E	F
EC1^{PLUS}	EN ISO 16000-9	AgBB	EN ISO 16000-9
1,64 x 10^{-14} m^{2}s^{-1}	-	-	-
-40°C / +100°C	-40°C / +80°C	-20°C / +80°C	-40°C / +80°C

Customizable products

R2

Customize your membrane!

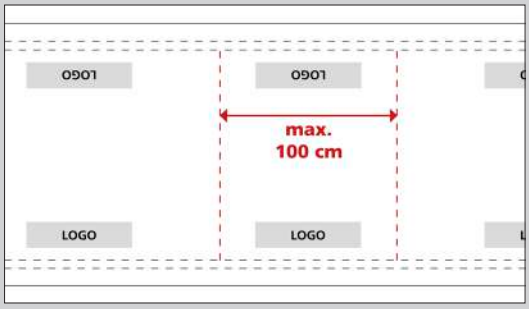
Create your customized membrane (with your logo and colors) **and let people recognize your business!**
The minimum effort, the maximum result!
Make your construction site unique, to guarantee double success. The customized membrane guarantees high visibility to your company until the final covering is laid.

How to do it?

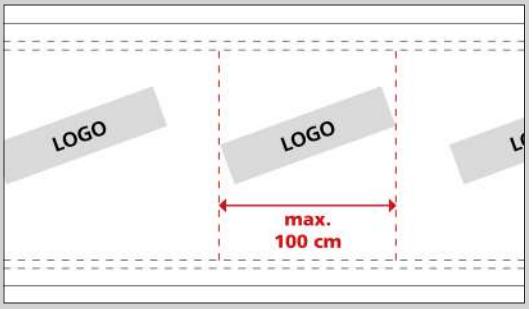
Send your vector logo to your local technical consultant. In no time, you will receive some graphic proposals from which you can choose. The minimum order quantity for standard products (membrane colour and print colour as indicated in our catalogue) is 4.500 m²; for a completely customized product (membrane colour and printing colour) the minimum order quantity is 9.000 m².

Models for membrane customization

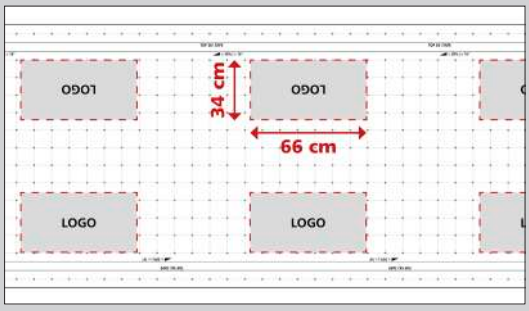
"SMALL LOGO"
Protector, Superior, Eurostandard Line



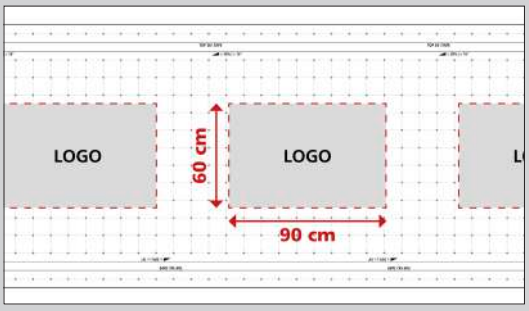
"BIG LOGO"
Protector, Superior, Eurostandard Line



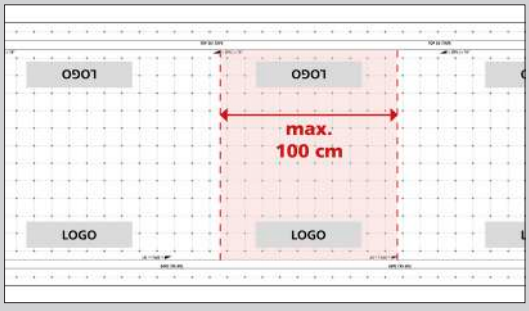
"SMALL SWING LOGO"
Protector, Superior Line



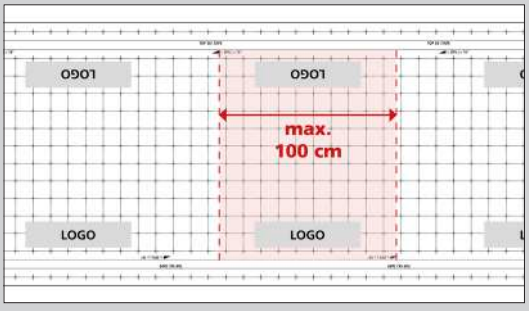
"BIG SWING LOGO"
Protector, Superior Line



"SUPERIOR STANDARD LOGO"
Superior Line



"PROTECTOR STANDARD LOGO"
Protector Line



Auto-adhesive screens and membranes

VSK is a product line of breathable membranes, vapour control layers and vapour barriers with self-adhesive surfaces. Today, these innovations make it possible to facilitate and speed up the installation of roof, floor or wall membranes. Another major advantage is that these membranes adhere to the surface over the entire area, which makes them more resistant to mechanical effects such as foot traffic or weathering.

VSK vapour retarders, barriers and breathable membranes are divided into the following models:

A) **VSK Classic Light**
Breathable, waterproof membrane with acrylic dispersion adhesive, suitable for the protection of walls, floors and timber roofs during the construction phase and the exterior protection of timber-concrete wall joints.

B) **VSK Clear 280**
The vapour control layer with acrylic dispersion adhesive is suitable for the protection of structures during transport and construction phases. Transparent, with non slippery surface.

C) **VSK Clear Light**
The lightest vapour control layer of the range, self-adhesive and with non-slip treatment, is ideal for walls, floors and sloping wooden roofs and offers an excellent compromise in terms of value for money.

D) **VSK DS 1500 SYN**
This vapour barrier with acrylic dispersion adhesive is certified as a radon gas barrier. It is ideal for use under subfloors and can also be used as a vapour barrier on flat roofs with a wooden structure.

E) **VSK Bitum Reflex 1200 AS**
The vapour barrier with non-slip surface and bitumen adhesive for increasing nail and /or screw tightness. It is ideal for under-ventilated timber sheathing and/or under metal roofs, e.g. in combination with the USB Drenlam Bluetech membrane.

F) **VSK Bitum Reflex 1200**
The vapour barrier with bitumen adhesive ideal for installation on flat roofs and floors with a concrete structure.

G) **VSK Bitum Reflex 400**
The vapour barrier with bitumen adhesive, lightweight, certified for installation on trapezoidal sheet metal according to DIN 18234-1.

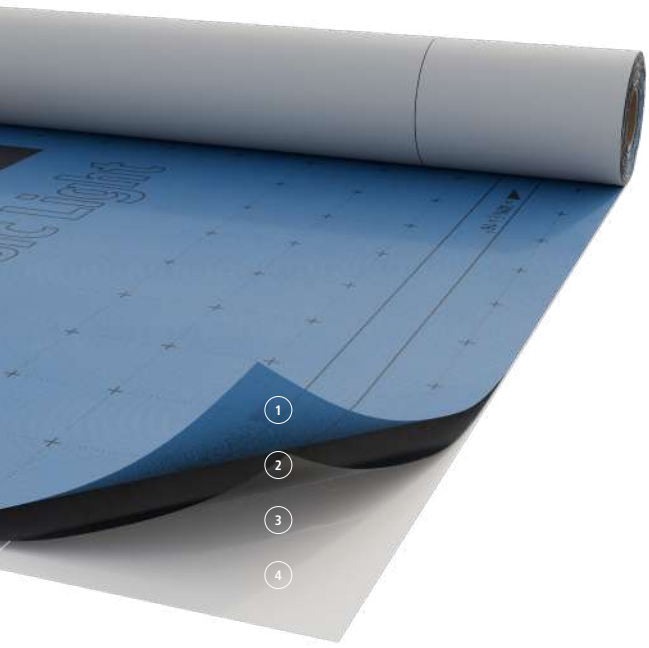
H) **VSK Bitum ARD**
This vapour barrier with bitumen adhesive is ideal on under-ventilated roof boarding as an additional waterproofing layer under roof tiles or for waterproofing low-pitched concrete roofs, car parking areas or open timber roofing.

VSK Classic Light

QUICK OVERVIEW: STRENGTHS

The self-adhesive breathable membrane

- Breathable, waterproof membrane, adhesive over the entire surface
- Protection of structures during transport and construction phases
- External protection on wood - concrete wall connection
- Acrylic dispersion-based adhesive



Features:

Classification:

Composition:

1. Protective UV stabilized, water repellent layer in PP
2. Film UV10 Bikom, monolithic, elastic
3. Acrylic dispersion-based adhesive
4. Re-cut liner 25/125 cm

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065010	-	1,5	30	1080

Technical data sheet

Mass per unit area	EN 1849-2	**220 g/m²**
Glue weight		**100 g/m²**
Pre-cutted liner		**125 + 25 cm**
S_d value	EN ISO 12572	**0,12 m**
Water vapour permeability	EN ISO 12572	**~ 200 g/m²/24 h**
Watern column	EN 20811	**>400 cm**
Heavy rain test	TU Berlin	**passed**
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 12311-1	**200 / 180 N/50mm**
Elongation MD/CD*	EN 12311-1	**90 / 100 %**
Tear resistance MD/CD*	EN 12310-1	**200 / 230 N**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Temperature resistance		**-40°C / +100°C**
Working temperature		**+5°C / +40°C**

*MD = longitudinal CD = transversal

VSK Clear 280

QUICK OVERVIEW: STRENGTHS

The self-adhesive vapour control layer, transparent and anti-slip

- Vapour control layer, adhesive on the entire surface
- Protection of structures during transport and construction phases
- Transparent, with non slippery surface
- Pre-cut liner for easier and faster laying

Features:

Classification:

CH SIA 232 VU-VO

FR DTU 31.2

IT UNI 11470 A

CE EN 13984

GEV-EMICODE EC 1 PLUS very low emission

Composition:

Functional film in EVA (1)

PP non-woven fabric (2)

Modified acrylic dispersion-based adhesive (3)

Pre-cutted liner 25 cm (4)

Technical data sheet

Mass per unit area	EN 1849-2	**220 g/m²**
Glue weight		**100 g/m²**
Pre-cutted liner		**25 + 125 / 50 / 12,5 cm**
S_d value	EN ISO 12572	**>3 m**
Water vapour permeability	EN ISO 12572	**~ 15 g/m²/24 h**
Watern column	EN 20811	**>550 cm**
Resistance to water passage	EN 13984	**W1**
Tensile strength MD/CD*	EN 12311-1	**130 / 90 N/50mm**
Elongation MD/CD*	EN 12311-1	**104 / 90 %**
Tear resistance MD/CD*	EN 12310-1	**npd****
Fire reaction class	EN 13501-1	**E**
Emissions	EMICODE®	**EC1 PLUS**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**
Working temperature		**-5°C / +40°C**

**no performance determinated

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet
02065050	-	1,5	30	1080 m²
02065051	-	0,75	30	480 m
02065052	-	0,375	30	960 m

VSK Clear Light

QUICK OVERVIEW: STRENGTHS

The self-adhesive vapour control layer, the lightest of the product group

- Vapour control layer, adhesive on the entire surface
- Ideal protection for walls, ceilings and pitched wooden roofs
- Transparent, with non slippery surface and pre-cut liner
- Great quality/price ratio

new product

Features:

Classification:

Composition:

1. Anti-slip coating
2. PP non-woven fabric
3. Acrylic dispersion-based adhesive
4. Pre-cutted liner 25 cm

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065055	-	1,5	50	1800

Technical data sheet

Mass per unit area		**175 g/m²**
Glue weight		**100 g/m²**
Pre-cutted liner		**25 + 125 cm**
S_d value	EN 1931	**8 m**
Water vapour permeability	EN ISO 12572	**~ 3 g/m²/24 h**
Watern column	EN 20811	**npd****
Resistance to water passage	EN 1928 (Met. A)	**W1**
Tensile strength MD/CD*	EN 1931	**115 / 80 N/50mm**
Elongation MD/CD*	ISO 527-3	**70 / 80 %**
Tear resistance MD/CD*	EN 12310-1	**60 / 80 N**
Fire reaction class	EN ISO 11925-2	**E**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**
Working temperature		**-5°C / +40°C**

**no performance determinated
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

VSK DS 1500 SYN

QUICK OVERVIEW: STRENGTHS

The self-adhesive radon and vapour barrier

- Vapour barrier, adhesive on the whole surface
- Certified as radon gas barrier, ideal for under screed laying
- Vapour barrier screen on flat roofs with wooden structure
- Acrylic dispersion-based adhesive

Features:

Classification:

CH SIA 232-1 VU-VO G+R

FR DTU 31.2

IT UNI 11470 A

CE EN 13984

GEV-EMICODE EC1 PLUS sehr emissionsarm

Composition:

Protective layer in PP (1)

Film in PE and aluminium (2)

Protective layer in PP (3)

Acrylic dispersion-based adhesive (4)

Re-cut liner 25/125 cm (5)

Technical data sheet

Mass per unit area	EN 1849-2	**220 g/m²**
Glue weight		**100 g/m²**
Pre-cutted liner		**125 + 25 cm**
S_d value	EN ISO 12572	**>1500 m**
Water vapour permeability	EN ISO 12572	**~ 0,02 g/m²/24 h**
Watern column	EN 20811	**>200 cm**
Water tightness	EN 13984	**passed**
Tensile strength MD/CD*	EN 12311-1	**170 / 110 N/50mm**
Elongation MD/CD*	EN 12311-1	**60 / 45 %**
Tear resistance MD/CD*	EN 12310-1	**75 / 90 N**
Fire reaction class	EN 13501-1	**E**
Radon gas diffusion (D)	ISO 11665-10	**1,64 x 10^{-14} m^2s^{-1}**
Emissions	EMICODE®	**EC1 PLUS**
UV stability		**3 months**
Temperature resistance		**-40°C / +100°C**
Working temperature		**+5°C / +40°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065030	-	1,5	30	1080

System accessories on pages 148-194

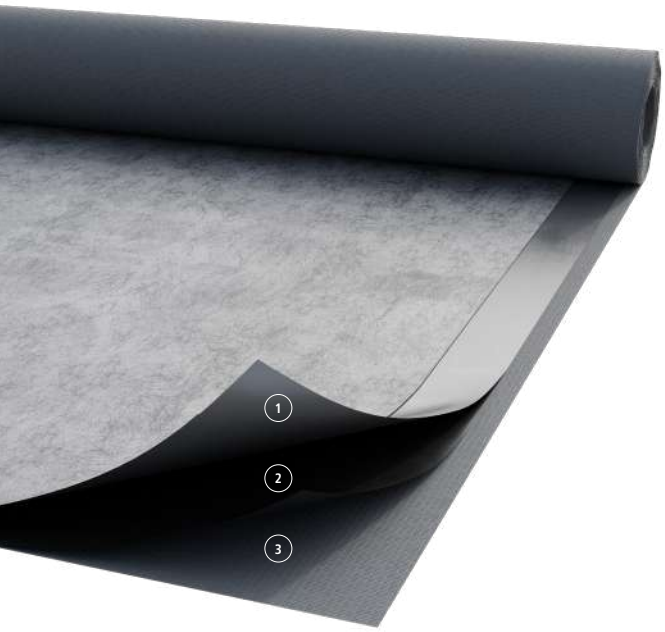
*MD = longitudinal CD = transversal

VSK Bitum Reflex 1200 AS

QUICK OVERVIEW: STRENGTHS

Self-sealing, self-adhesive waterproof bituminous underlayment with non-slip surface

- Vapour barrier, adhesive on the whole surface
- Ideal on under-ventilated plankings under metal covers
- The perfect solution in combination with USB Drenlam Bluetech
- Increases nail/screw sealing
- Bitumen-based adhesive



Features:

Classification:

Composition:

1. Composite aluminium foil with non-slip surface
2. Self-adhesive modified bitumen
3. Silicone liner

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065033	-	1	25	625

Technical data sheet

Mass per unit area	EN 1849-1	**~ 1200 g/m²**
Thickness	EN 1849-1	**1,2 mm**
S_d value	EN ISO 12572	**>1500 m**
Water tightness (≥60kPa)	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**220 / 220 N/50mm**
Elongation MD/CD*	EN 12311-1	**40 / 40 %**
Tear resistance MD/CD*	EN 12310-1	**180 / 180 N**
Peel strength at the joints	EN 12316-1	**35 N/50mm**
Resistance to static punching	EN 12730 (Met. A)	**15 kg**
	EN 12730 (Met. B)	**20 kg**
Fire reaction class	EN 13501-1	**E**
Flexibility at low temperatures	EN 1109	**-30°C**
Working temperature		**+0°C / +40°C**
Temperature resistance		**-40°C / +80°C**
Flow resistance at elevated temp.	EN 1110	**≥ +80°C**

*MD = longitudinal CD = transversal

VSK Bitum Reflex 1200

QUICK OVERVIEW: STRENGTHS

Self-adhesive vapour barrier for ceilings and flat roofs

- Vapour barrier, adhesive on the whole surface
- Certified as a barrier against radon gas ideal for under screed laying
- Fully vapour impermeable, with reflective surface
- Bitumen-based adhesive

Features:

10 years guarantee

Rn

Classification:

CH SIA 232 VU-VO

FR DTU 31.2

CE EN 13970

EPD

Composition:

Composite aluminium foil (1)

Self-adhesive modified bitumen (2)

Silicone liner (3)

Technical data sheet

Mass per unit area	EN 1849-1	**~ 1200 g/m²**
Thickness	EN 1849-1	**1,2 mm**
S_d value	EN 1931	**>1500 m**
Water tightness (10kPa)	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**470 / 320 N/50mm**
Elongation MD/CD*	EN 12311-1	**3 / 3 %**
Tear resistance MD/CD*	EN 12310-1	**120 / 120 N**
Peel strength at the joints	EN 12317-1	**≥250 N/50mm**
Straightness	EN 1848-1	**<20 mm/10m**
Resistance to shock loads	EN 12691	**npd****
Fire reaction class	EN 13501-1	**E**
Radon gas diffusion (D)	ISO/TS 11665-13	**<1,8 x 10^{-13} m^2s^{-1}**
Diffusion length (L_D)	ISO/TS 11665-13	**<2,9 x 10^{-4} m**
Resistance (R_{Rn})	ISO/TS 11665-13	**52465 ± 6243 Ms/m**
Flexibility at low temperatures	EN 1109-1	**-25°C**
Working temperature		**≥ +10°C**
Flow resistance at elevated temp.	EN 1110	**+80°C**

**no performance determinated

*MD = longitudinal CD = transversal

Riwega Srl is not responsible for negligent and improper use of its products

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065031	-	1	20	400

System accessories on pages 148-194

VSK Bitum Reflex 400

QUICK OVERVIEW: STRENGTHS

Self-adhesive vapour barrier, certified for installation on industrial buildings

- Vapour barrier, adhesive on the whole surface
- Complies with DIN 18234-1: structural fire protection on large roofs
- Ideal for installation over corrugated sheet
- Bitumen-based adhesive

Composition:

1. Composite aluminium foil
2. Fibre mesh of glass
3. Self-adhesive modified bitumen
4. Silicone liner

Features:

10 years guarantee

Classification:

CH SIA 232 VU-VO

FR DTU 31.2

CE EN 13970

EPD

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065032	-	1,08	50	1.080

Technical data sheet

Mass per unit area	EN 1849-1	**~ 400 g/m²**
Thickness	EN 1849-1	**0,4 mm**
S_d value	EN 1931	**>1500 m**
Water tightness (10kPa)	EN 1928 (Met. A)	**passed**
Tensile strength MD/CD*	EN 12311-1	**800 / 800 N/50mm**
Elongation MD/CD*	EN 12311-1	**20 / 10 %**
Tear resistance MD/CD*	EN 12310-1	**300 / 300 N**
Peel strength at the joints	EN 12317-1	**npd****
Straightness	EN 1848-1	**<20 mm/10m**
Resistance to shock loads	EN 12691	**npd****
Fire reaction class	EN 13501-1	**E**
Fire loading	DIN 18234-1	**≤11,6 MJ/m²**
Flexibility at low temperatures	EN 1109-1	**≤ -40°C**
Working temperature		**≥ +10°C**
Flow resistance at elevated temp.	EN 1110	**+110°C**

**no performance determinated
*MD = longitudinal CD = transversal

VSK Bitum ARD

QUICK OVERVIEW: STRENGTHS

The self-adhesive shelter bit slated bituminous underlayment

- Vapour barrier, adhesive on the whole surface
- Ideal as direct under-tile waterproofing
- Application on pitched concrete roofs
- Ideal for carports or canopies in wood
- Bitumen-based adhesive

Features:

10 years guarantee

Classification:

CH SIA 232 VU-VO

FR DTU 31.2

CE EN 13984

EPD

Composition:

Silicone liner (1)

Self-adhesive modified bitumen with slate flakes (2)

Pre-cutted silicone liner 50/50 cm (3)

Technical data sheet

Mass per unit area	EN 1849-2	**3500 g/m²**
Water tightness	EN 1928 (Met. A)	**60 kPa**
S_d value	EN ISO 12572	**70 m**
Tensile strength MD/CD*	EN 12311-1	**500 / 400 N/50mm**
Elongation MD/CD*	EN 12311-1	**35 / 35 %**
Tear resistance MD/CD*	EN 12310-1	**150 / 150 N**
Straightness	EN 1848-1	**<20 mm/10m**
Visible defects	EN 1850-1	**NO**
Fire reaction class	EN 13501-1	**F**
External fire reaction class	EN 13501-5	**F_{roof}**
UV stability		**4 months**
Flexibility at low temperatures	EN 1109-1	**-20°C**
Flow resistance at elevated temp.	EN 1110	**≥ +90°C**

Codes and measures

Code	Code TOP SK	Width (m)	Length (m)	Pallet (m²)
02065040	-	1	10	300

*MD = longitudinal CD = transversal

Auto-adhesive screens and membranes

R2

Technical data sheet	VSK Classic Light	VSK Clear 280	VSK Clear Light
	The self-adhesive breathable membrane	The self-adhesive vapour control layer, transparent and anti-slip	The self-adhesive vapour control layer, the lightest of the product group
			
Code 0,375 m	-	02065052	-
Code 0,75 m	-	02065051	-
Code 1,0 m	-	-	-
Code 1,08 m	-	-	-
Code 1,5 m	02065010	02065050	02065055
Material	PP-composite	EVA.PP	PP.Anti-slip coating
Glue	acrylic	acrylic	acrylic
Mass per unit area	220 g/m^2	290 g/m^2	175 g/m^2
Semitransparency	NO	YES	YES
Length	30 m	30 m	50 m
Pre-cutted liner	125 + 25 cm	25 + 125 / 50 / 12,5 cm	125 + 25 cm
Thickness	0,65 mm	0,37 mm	0,27 mm
Non-slip	NO	NO	YES
Nail sealing	NO	NO	NO
S_d value	0,12 m	>3 m	8 m
Tensile strength MD/CD*	220 / 180 N/50mm	130 / 90 N/50mm	115 / 80 N/50mm
Elongation MD/CD*	90 / 100 %	104 / 90 %	70 / 80 %
Tear resistance MD/CD*	200 / 230 N	-	60 / 80 N
Water tightness	W1	W1	W1
Fire reaction class	E	E	E
Emissions	-	EC1^{PLUS}	-
Radon gas diffusion (D)	-	-	-
Working temperature	+5°C / +40°C	-5°C / +40°C	-5°C / +40°C

*MD = longitudinal CD = transversal

VSK DS 1500 SYN	VSK Bitum Reflex 1200 AS	VSK Bitum Reflex 1200	VSK Bitum Reflex 400	VSK Bitum ARD
The self-adhesive radon and vapour barrier	Self-adhesive water-proof bituminous underlayment with non-slip surface	Self-adhesive vapour barrier for ceilings and flat roofs	Self-adhesive vapour barrier, certified for installation on industrial buildings	The self-adhesive shelter bit slated bituminous underlayment
				
-	-	-	-	-
-	-	-	-	-
-	02065033	02065031	-	02065040
-	-	-	02065032	-
02065030	-	-	-	-
PP.PE.Alu.PE.PP	Self-adhesive bitumi-nous compound and matt anti-slip aluminum	Self-adhesive bitumi-nous compound and composite aluminium foil	Self-adhesive bitumi-nous compound and composite aluminium foil	Self-adhesive modified bitumen with slate flakes
acrylic	bituminous	bituminous	bituminous	bituminous
235 g/m^2	~ 1200 g/m^2	~ 1200 g/m^2	~ 400 g/m^2	3500 g/m^2
NO	NO	NO	NO	NO
30 m	25 m	20 m	50 m	10 m
125 + 25 cm	-	-	-	50 + 50 cm
0,70 mm	1,2 mm	1,2 mm	0,4 mm	3,5 mm
NO	YES	NO	NO	YES
NO	YES	NO	NO	NO
>1500 m	>1500 m	>1500 m	>1500 m	70 m
170 / 110 N/50mm	220 / 220 N/50mm	470 / 320 N/50mm	800 / 800 N/50mm	500 / 400 N/50mm
60 / 45 %	40 / 40 %	3 / 3 %	20 / 10 %	35 / 35 %
75 / 90 N	180 / 180 N	120 / 120 N	300 / 300 N	150 / 150 N
passed	passed	passed	passed	passed
E	E	E	E	F
EC1^{PLUS}	-	-	-	-
1,64 x 10^{-14} m^{2}s^{-1}	-	<1,8 x 10^{-13} m^{2}s^{-1}	-	-
+5°C / +40°C	+0°C / +40°C	≥ +10°C	≥ +10°C	≥ +10°C

Temporary rain sheets

QUICK OVERVIEW: STRENGTHS

The essential protection for your working site

- Temporary rain sheet
- Temporary protection during working phases
- Waterproof element for emergencies
- High tearing resistance thanks to reinforcement stripes
- Available in RAPID version which is provided with a central hook for a quicker positioning

Composition:

1. PE layer
2. Metal grommet

Codes and measures

Version	Code	Width (m)	Length (m)	Pallet (m²)
RAPID	02070001	15	15	-
Standard	02070002	6	10	-
Standard	02070003	8	10	-
Standard	02070004	10	12	-

Technical data sheet - Temporary rain sheet RAPID

Material		**PE**
Colour		**Green**
Mass per unit area		**200 g/m²**
Mass per unit area reinforced PE		**220 g/m²**
Water tightness		**passed**
Tensile strength (layer)		**1000 N (~ 100 kg)**
Tensile strength (reinforcing stripes)		**2100 N (~ 210 kg)**
Perimetral reinforcement		**~ 5 cm**
Perimetral grommets distance		**grommets' ø 12 mm (each 1 m)**
Coating		**on both sides**
UV stability		**stabile**
Temperature resistance		**-40°C / +80°C**

Riwega® | eternitycomfort

R3 **Waterproofing, air and wind tightness**

Index

R3

R3 Waterproofing, air and wind tightness

Index

R3 Waterproofing, air and wind tightness

Graphic references

R3


Roof/wall outside/inside


Roof/Wall outside


Roof/wall inside


Ceiling inside

25 years guarantee

10 years guarantee


High breathable


Vapour control layer


Variable S_d value


Vapour barrier


Water proofness


Anti rising effect


Air- and wind tightness


Wind tightness


Air tightness


Cutted liner


Partial liner


Without liner


Nail tight


Easily moudable


Aging resistant


Fast installation


Mesh reinforced


Semi-transparent


Mechanically resistant


High elasticity


High adhesion


Biadhesive surface


UV resistant


Heat reflecting


Fire reaction


Low temperature resistance


Acoustic insulation


Different measures


Plasterable surface

Radon resistant


Expanding properties


Rippable by hand


Cuttable


Anti-root material

Compliant with EN ISO 16000-9


Universal use

Acrylic adhesive tapes

A building of modern conception, defined as nZEB (Nearly Zero Energy Building), achieves its objectives of energy-saving and living comfort when a well-insulated and airtight building envelope is built, with well-designed and manufactured wind and airtight systems.

To sum up, these are the reasons why air-tightness should not be neglected in an energy-efficient building:

- the better high energy efficiency of the envelope
- heat loss is avoided
- the possibility of interstitial condensation is reduced and the whole building works better
- avoids moisture loads in the insulation package
- improves the health of the building
- the CMV (controlled mechanical ventilation) works better
- increases living comfort

Riwega acrylic adhesive tapes

In this field the acrylic adhesive tapes proposed by Riwega stand out as indispensable products; made with the last polymeric technologies of acrylic dispersion, without VOCs and harmful substances, maintain zero contamination risk of the air in the building.

The adhesive systems are designed to give the best adhesion results on all building products (screens and membranes, wood, brick, concrete, metal, etc...) and have durability overtime to ensure results for the entire duration of the building. Riwega's 20 years of experience has meant that depending on the type of adhesive and the type of support can offer various solutions for sealing, depending on your needs:

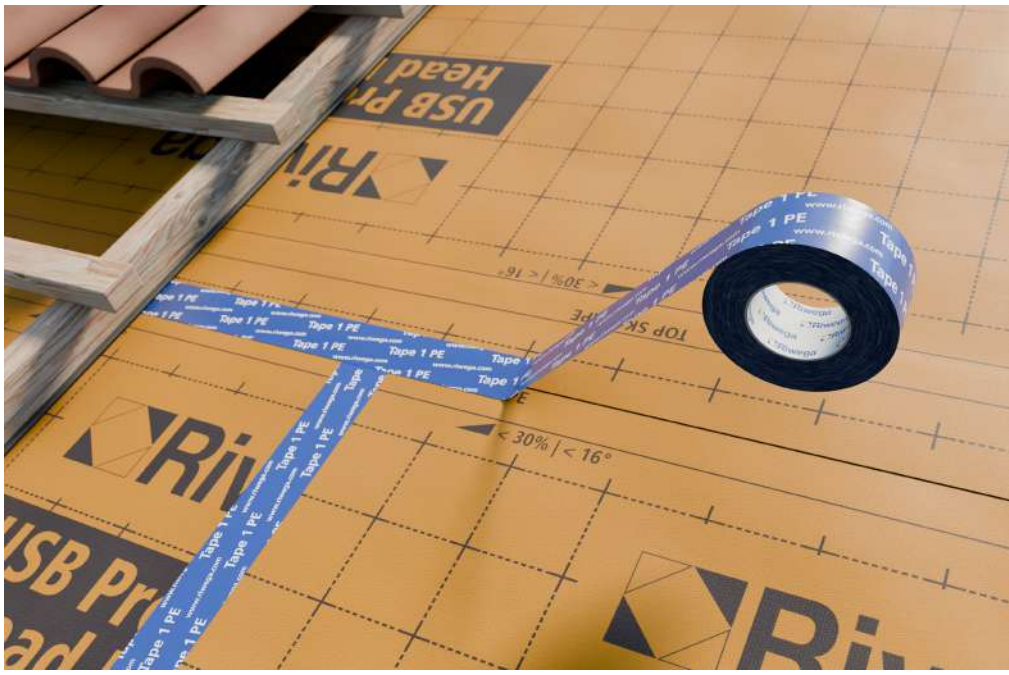
- Flexibility and plasticity thanks to the elastic polyethylene support
- Rigidity and mechanical strength thanks to the rigid polypropylene support
- Fast processing thanks to the treated polyethylene backing of the protective liner
- Processing at low temperatures thanks to a specific glue formulation
- Permanent UV stability thanks to black polyethylene backing
- Convenience in corners thanks to the pre-folded strip
- Simplicity and cost-effectiveness thanks to the paper support
- Reflectance thanks to the aluminium support
- Plasterability thanks to the polypropylene fabric support
- Economical thanks to the polyethylene backing and glue according to normal standards
- A multiplicity of solutions thanks to double-sided tape solutions

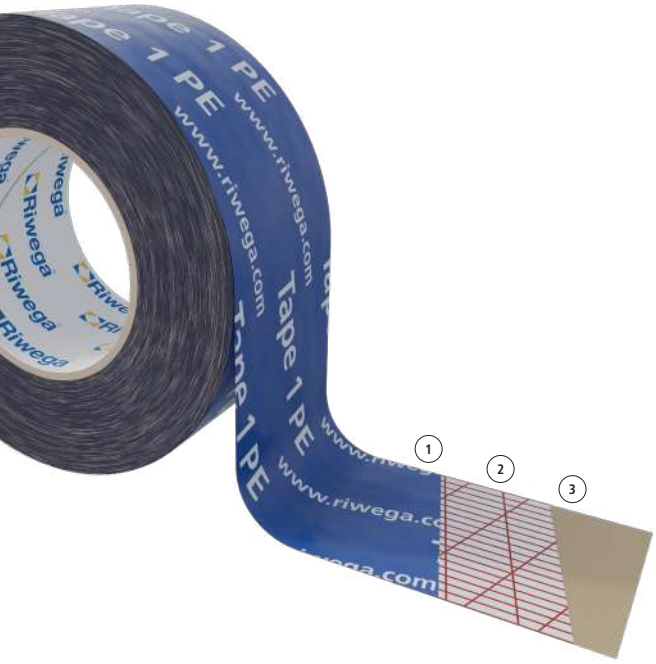
Tape 1 PE

QUICK OVERVIEW: STRENGTHS

Single-sided acrylic tape

- The extreme flexibility makes it easily adaptable to any laying situation
- Next-generation acrylic glue, high adhesion, solvent-free
- Dual use, internal and exterior, thanks to the waterproof surface
- Particularly resistant to UV rays and ageing





Composition:

1. Polyethylene
2. Acrylic glue with PET reinforcing
3. Silicone liner**

Features:

25 years guarantee

Classification:

AT Önorm B 8110-2 | CH SIA-Norm 180 | DE DIN 4108-7 DIN 4108-11

Codes and measures

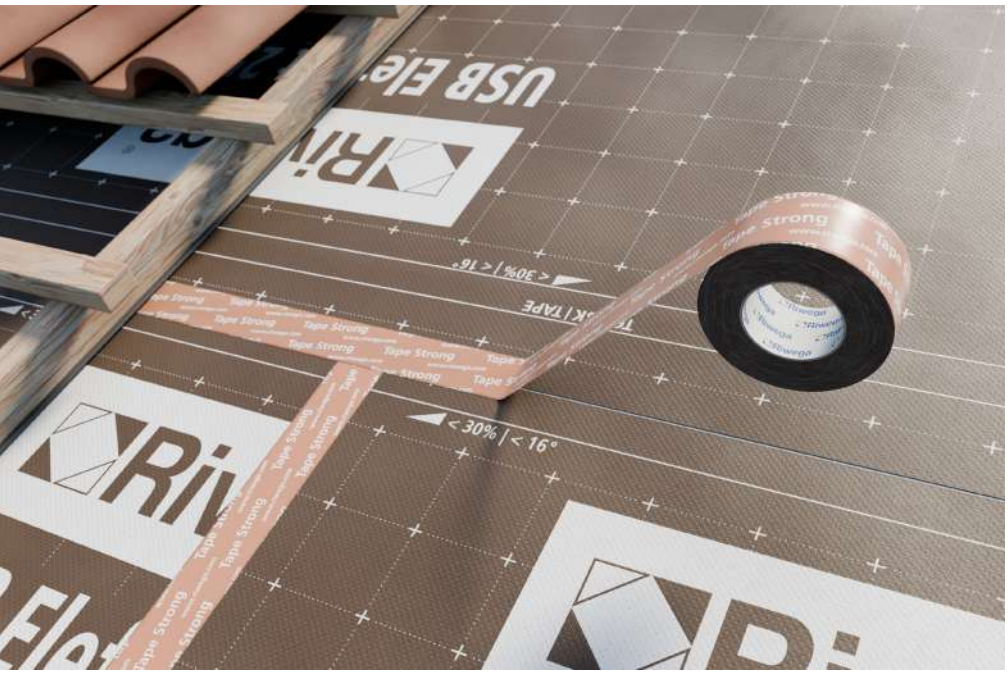
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 1 PE	02040160	60x25	10	80
Tape 1 PE 100 X	02040193	100 (50+50) x25	6	80
Tape 1 PE 150	02040194	150x25	4	80

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**LDPE film**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,27 - 0,29 mm**
S_d value		**~12 m**
Tear resistance with elasticity	DIN EN 14410	**≥25 N/25 mm; 300 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+5°C / +30°C lavorabile from -10°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**24 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

*with reference to the Central European climate
**pre-cutted silicone liner in Tape 1 PE 100 X (50+50 mm)
Riwega Srl is not responsible for negligent and improper use of its products

Tape Strong



QUICK OVERVIEW: STRENGTHS

Nondeformable with easy tearing

- Single-sided acrylic tape
- The particular rigidity reduces excessive deflections
- Next-generation acrylic glue, high adhesion, solvent-free
- Dual use, internal and exterior, thanks to the waterproof surface
- The toothing on the sides makes it easily tearable by hand

Features:

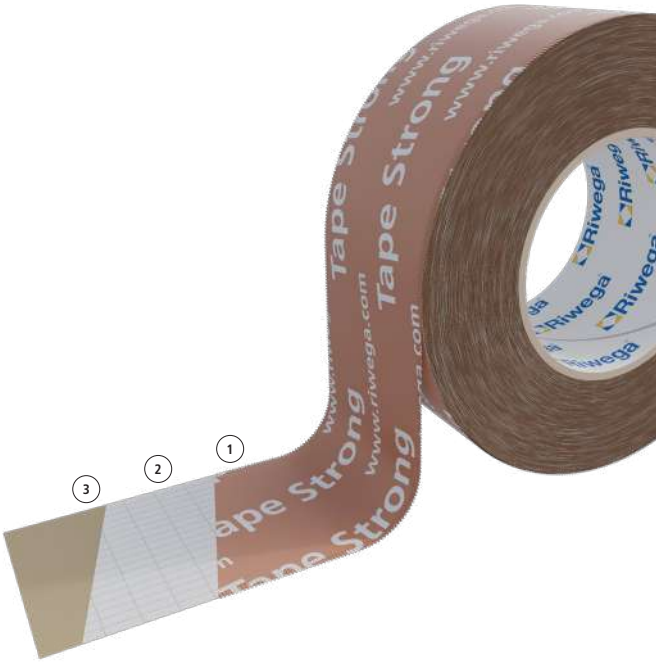
25 years guarantee

Classification:

AT Önorm B 8110-2 | CH SIA-Norm 180 | DE DIN 4108-7 DIN 4108-11 | EMICODE EC1 PLUS

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**PP film**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,30 - 0,32 mm**
S_d value		**~16 m**
Tear resistance with elasticity	DIN EN 14410	**≥60 N/25 mm; 450 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**24 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**



Composition:

1. Polypropylene
2. Acrylic glue with PET reinforcing
3. Silicone liner**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Strong	02040170	60x25	10	80
Tape Strong 12/48	020401701	60 (12+48) x25	10	80
Tape Strong 200 X	02040172	200 (100+100) x25	2	80

*with reference to the Central European climate
**pre-cutted silicone liner in Tape Strong 12/48 variant (12+48 mm) and Tape Strong 200 X (100+100 mm)
Riwega Srl is not responsible for negligent and improper use of its products

Tape Rapid

QUICK OVERVIEW: STRENGTHS

The quickest ever

- Single-sided acrylic tape
- Speed up installation because of the absence of the liner
- Next-generation acrylic glue, high adhesion, solvent-free
- Dual use, internal and exterior, thanks to the waterproof surface
- Minimizes waste on the building site

Composition:

1. LDPE/PP
2. Acrylic glue with PET reinforcing

Features:

Classification:

AT Önorm B 8110-2

CH SIA-Norm 180

DE DIN 4108-7 DIN 4108-11

GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

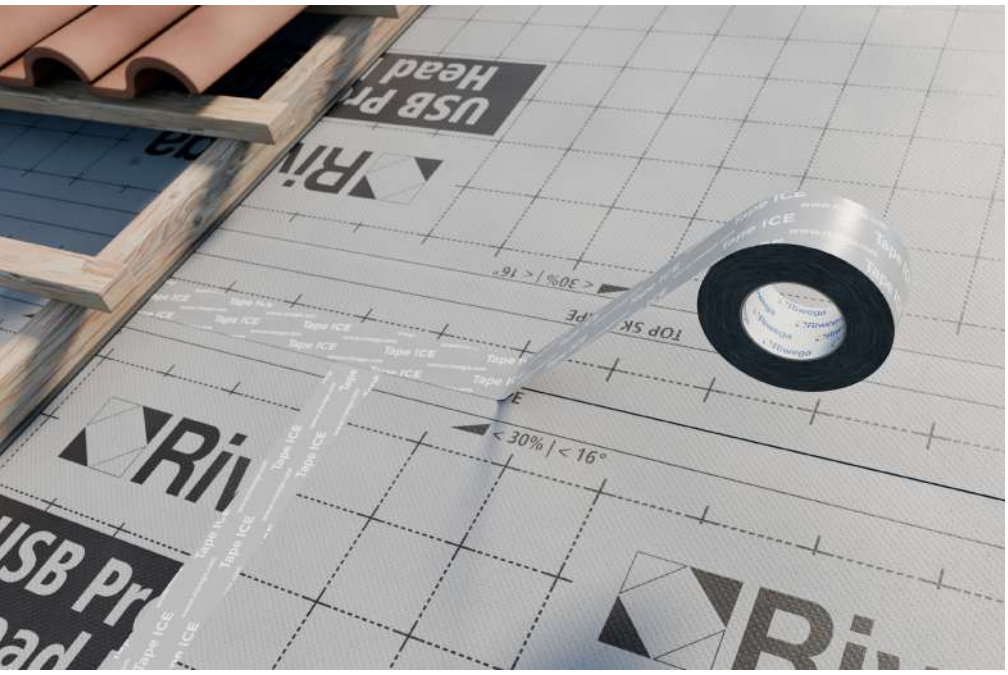
Glue		**polyacrylate-based disp.**
Glue carrier material		**LDPE/PP film**
Reinforcing mesh		**YES**
Protection liner		**NO**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,23 - 0,27 mm**
S_d value		**~40 m**
Tear resistance with elasticity	DIN EN 14410	**≥35 N/25 mm; 400 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +120°C**
UV stability		**24 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Rapid	02040162	60x50	10	80

*with reference to the Central European climate

Tape ICE



QUICK OVERVIEW: STRENGTHS

Low temperature – high adhesion

- Single-sided acrylic tape
- The adhesive layer guarantees an immediate grip down to -20°C
- Next-generation acrylic glue, high adhesion, solvent-free
- Dual use, internal and exterior, thanks to the waterproof surface
- Good UV and ageing resistance

Features:

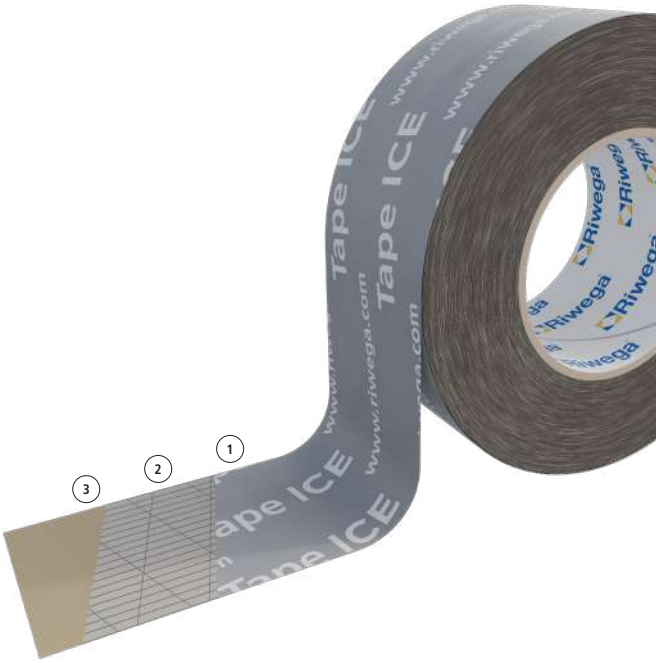
25 years guarantee

Classification:

AT Önorm B 8110-2 | CH SIA-Norm 180 | DE DIN 4108-7 DIN 4108-11 | GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**LDPE film**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,26 - 0,28 mm**
S_d value		**~11 m**
Tear resistance with elasticity	DIN EN 14410	**≥25 N/25 mm; 50 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+5°C / +30°C lavorabile from -20°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**24 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**



Composition:

Polypropylene (1)

Acrylic glue with PET reinforcing (2)

Silicone liner (3)

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape ICE	02040165	60x25	10	80

*with reference to the Central European climate

Riwega Srl is not responsible for negligent and improper use of its products

Tape UV

QUICK OVERVIEW: STRENGTHS

Specially designed to withstand UV rays

- Single-sided acrylic tape
- Unsurpassed UV and ageing resistance
- Ideal sealing in ventilated facades with open joints
- Next-generation acrylic glue, high adhesion, solvent-free
- The particular rigidity reduces excessive deflections

Composition:

1. UV stabilized PP
2. Acrylic glue with polyester reinforcing
3. Silicone liner**

Features:

25 years guarantee

Classification:

AT Önorm B 8110-2

CH SIA-Norm 180

DE DIN 4108-7 DIN 4108-11

GEV-EMICODE EC 1 PLUS very low emission

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape UV 60	02040183	60x25	10	80
Tape UV 80	02040181	80x25	6	80
Tape UV 300 X	020103533	300 (150+150) x25	2	60

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**PP film**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,30 - 0,32 mm**
S_d value		**~16 m**
Tear resistance with elasticity	DIN EN 14410	**≥60 N/25 mm; 450 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**24 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

*with reference to the Central European climate
**pre-cutted silicone liner in Tape UV 300 X variant (150+150 mm)
Riwega Srl is not responsible for negligent and improper use of its products

Tape Corner

QUICK OVERVIEW: STRENGTHS

The best one for angular conjunctions

- Single-sided acrylic tape
- Pre-folded and partly devoid of the liner to facilitate the laying
- Acrylic glue, with high adhesion on all surfaces
- Dual use, internal and exterior, thanks to the waterproof surface

Features:

Composition:

Partial silicone liner (1)

Acrylic glue (2)

Polyethylene (3)

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**LDPE film**
Reinforcing mesh		**NO**
Protection liner		**PARTIAL**
Solvents and emollients		**NO**
S_d value		**~0,5 m**
Working temperature		**≥+0°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**4 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Corner 30/30	02040191	30+30x25	7	-
Tape Corner 12/48	02040192	12+48x25	5	-

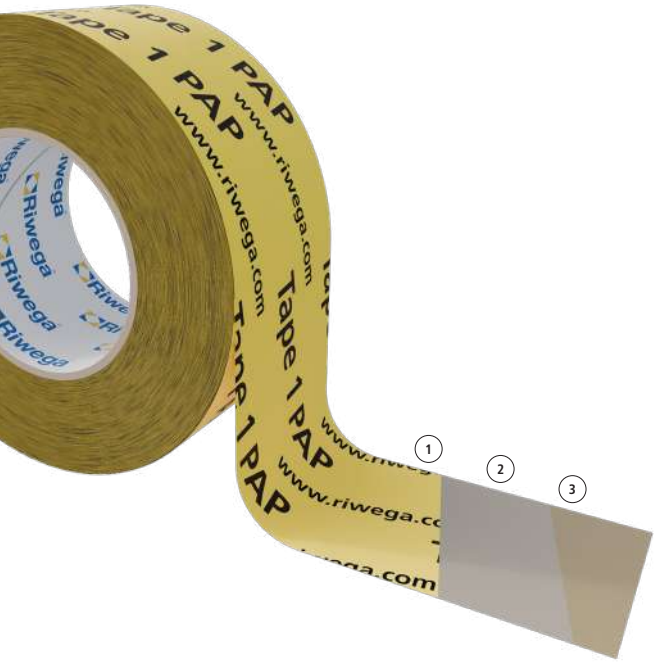
*with reference to the Central European climate

Tape 1 PAP

QUICK OVERVIEW: STRENGTHS

The tape for internal use

- Single-sided acrylic tape
- Perfect for sealing any interruption of vapour control layers and wooden surfaces
- Paper surface, usable indoors only
- Next-generation acrylic glue, high adhesion, solvent-free



Composition:

1. Paper with PE coating
2. Acrylic glue
3. Silicone liner*

Features:

25 years guarantee

Classification:

AT	CH	DE
Önorm B 8110-2	SIA-Norm 180	DIN 4108-7 DIN 4108-11

Codes and measures

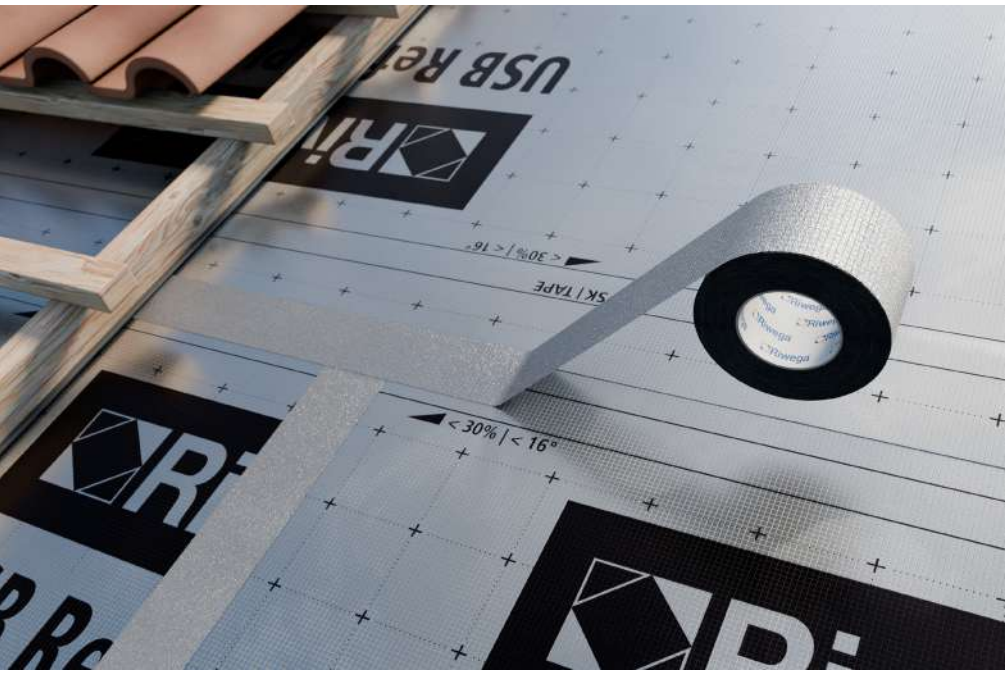
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 1 PAP	02040150	60x25	10	80
Tape 1 PAP X	02040151	60 (30+30) x25	10	80
Tape 1 PAP X3	02040152	60 (30+15+15) x25	10	80

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**paper with PE coating**
Reinforcing mesh		**NO**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,32 - 0,34 mm**
S_d value		**~5 m**
Tear resistance with elasticity	DIN EN 14410	**≥150 N/25 mm; 3-5 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

*pre-cutted silicone liner in Tape 1 PAP X (30+30 mm) and Tape 1 PAP X3 (30+15+15 mm)

Tape Reflex



QUICK OVERVIEW: STRENGTHS

The reflective one

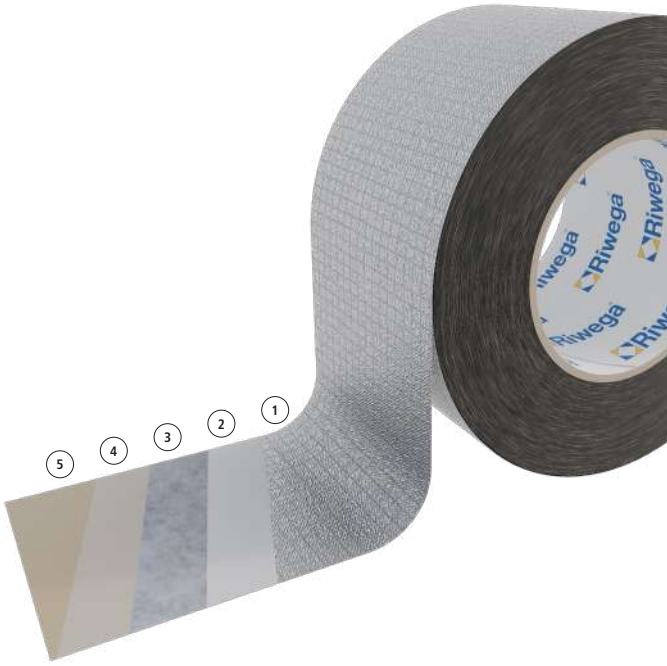
- Single-sided acrylic tape
- Specially designed for sealing of USB Reflex Plus and DS 188 ALU
- Dual use, interior and exterior, thanks to the reflective surface
- Next-generation acrylic glue, high adhesion, solvent-free

Features:

10 years guarantee

Classification:

AT	CH	DE
Önorm B 8110-2	SIA-Norm 180	DIN 4108-7 DIN 4108-11



Composition:

- Aluminium sprayed PP film (1)
- PP film (2)
- Non-woven fabric in PP (3)
- Acrylic glue (4)
- Silicone liner (5)

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**alu sprayed PP film**
Reinforcing mesh		**NO**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,20 - 0,25 mm**
S_d value		**~42 m**
Tear resistance with elasticity	DIN EN 14410	**≥70 N/25 mm; 80 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**1 month***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Reflex	02040180	80x25	6	-

*with reference to the Central European climate

Tape Vlies

QUICK OVERVIEW: STRENGTHS

The plasterable one

- Single-sided acrylic tape
- Surface designed for points that need to be plastered over
- For the connection points of wood and plastering surfaces
- Next-generation acrylic glue, high adhesion, solvent-free

Features:

Classification:

Composition:

1. Non-woven fabric in PP
2. Acrylic glue
3. Silicone liner

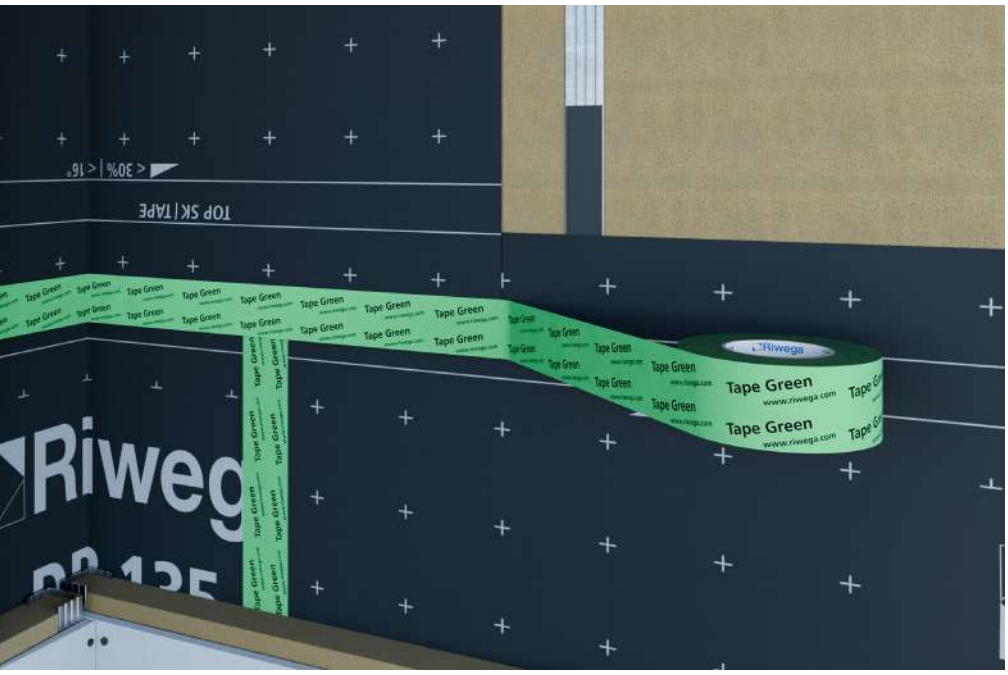
Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Vlies	02045800	50x25	12	-

Technical data sheet

Glue		**polyacrylate-based disp.**
Glue carrier material		**non-woven fabric in PP**
Reinforcing mesh		**NO**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,55 - 0,57 mm**
S_d value		**~8 m**
Tear resistance with elasticity	DIN EN 14410	**≥50 N/25 mm; 40 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

Tape Green



QUICK OVERVIEW: STRENGTHS

The essence of sealing

- Single-sided acrylic tape
- Excellent quality/price ratio
- Perfect for sealing any interruption of vapour control layers and wooden surfaces
- Dual use, internal and exterior, thanks to the waterproof surface
- High adhesion acrylic glue, solvent-free

Features:

Classification:

AT Önorm B 8110-2

CH SIA-Norm 180

DE DIN 4108-7 DIN 4108-11

GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

Glue		**pure polyacrylate**
Glue carrier material		**film in PE**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**~0,28 mm**
S_d value		**~40 m**
Tear resistance with elasticity	DIN EN 14410	**≥22 N/10 mm; 586 %**
Bond strength	DIN 4108-11	**compliant**
Resistance to condensation		**high**
Initial adhesion (Tack)		**high**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**12 months***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

*with reference to the Central European climate

**pre-cutted silicone liner in Tape Green 100 X (50+50 mm)

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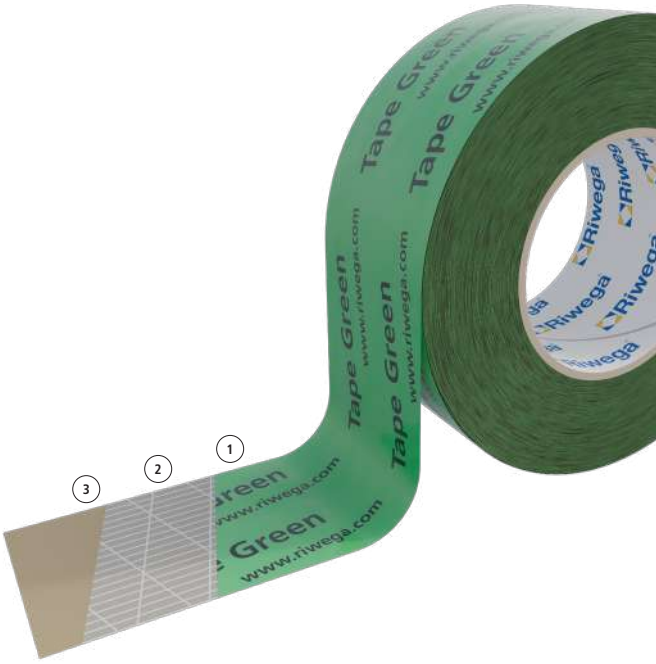


Composition:

Polyethylene (1)

Acrylic glue with PET reinforcing (2)

Silicone liner** (3)

Codes and measures

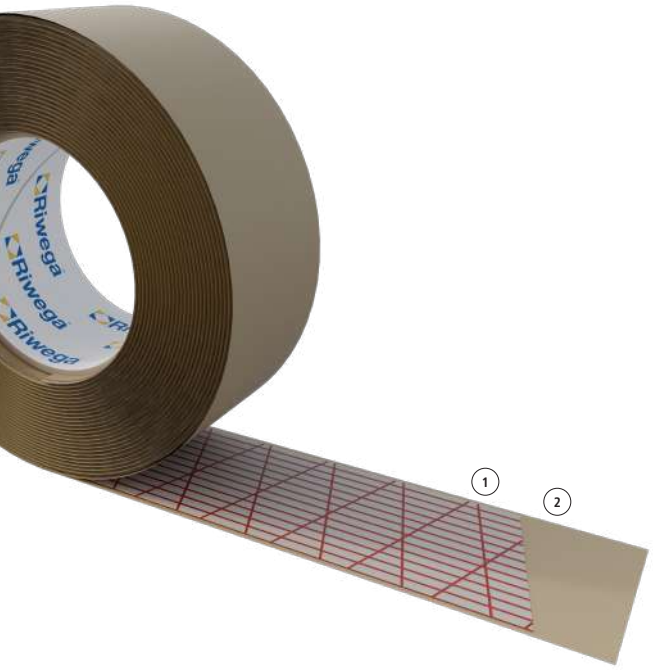
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape Green	02040161	50x25	12	85
Tape Green 60	020401616	60x25	10	85
Tape Green 100 X	020401610	100 (50+50) x25	6	42
Tape Green Industry	020401615	60x50	16	36

Tape 2 AC

QUICK OVERVIEW: STRENGTHS

Double adhesion in one tape

- Double-sided acrylic adhesive tape
- Specific for sealing of the overlaps of vapour control layers and breathable membranes
- High adhesion acrylic glue, solvent-free
- Quick and easy to lay
- Adheres to all surfaces of the building



Composition:

1. Acrylic glue with PET mesh
2. Silicone liner

Features:

Classification:

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 2 AC 20	02040220	20x50	12	60
Tape 2 AC 50	02040250	50x50	5	60

Technical data sheet

Glue		**polyacrylate-based disp.**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**0,22 - 0,24 mm**
Peel adhesion	AFERA 5001	**≥25 N/25 mm**
Resistance to condensation		**high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**high**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +120°C**
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

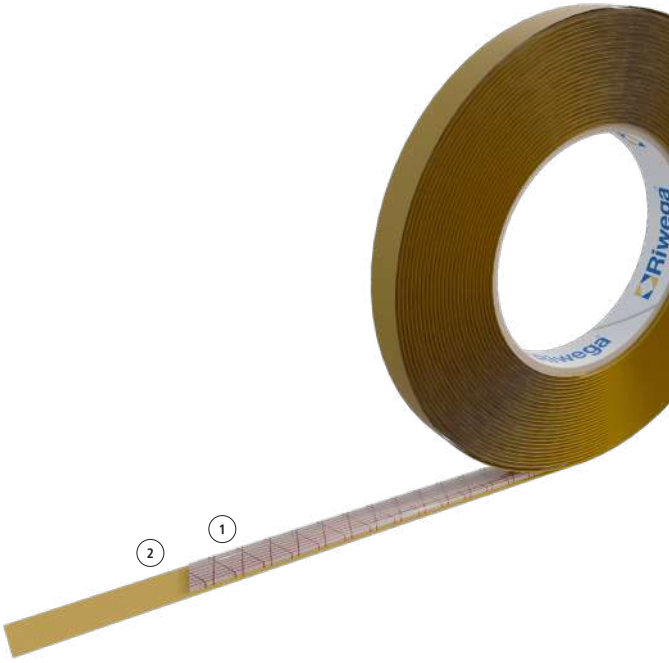
Tape BOLD

QUICK OVERVIEW: STRENGTHS

The reinforced, double-faced one

- Double-sided acrylic adhesive tape
- Highly adhesive acrylic mass on polyester mesh
- Ideal for taping vapour barriers and breathable membranes to wooden or wall structures
- High adhesion acrylic glue, solvent-free, with viscoelastic and thixotropic effects

Features:



Composition:

Acrylic glue with PET mesh (1)

Silicone liner (2)

Technical data sheet

Glue		**polyacrylate-based disp.**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 1942	**1,50 - 2,00 mm**
Peel adhesion	AFERA 5001	**≥25 N/25 mm**
Resistance to condensation		**high**
Resistance to aging		**high**
Initial adhesion (Tack)		**high**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +80°C**
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape BOLD	02040210	10x12	10	80

Butyl adhesive tapes

The most critical points of a building envelope in terms of water, air and wind tightness are the crossings and the emerging bodies, which are represented by systems, chimneys, shafts, pipes, windows, etc ... The butyl adhesive tapes are certainly the safest and most practical systems for the perfectly sealing of these critical points.

Riwega butyl adhesive tapes

Butyl is a compound that is produced by mixing gypsum powder and synthetic resins, thus obtaining an adhesive mass that can have different densities and viscosity grades; this is then extruded into stripes of varying widths and thicknesses as required and can be coupled with various types of supports, to obtain specific characteristics that allow solving a large number of different situations. These are the different solutions offered by Riwega:

- Highly flexible tape for circular sealing around pipes and vents
- Wide tape with pre-cut liner for corner sealing of windows, fireplaces, shafts, wall attachments, etc.
- Tapes of various widths for different seals
- A tape which is Certified class "B" in fire reaction, to seal surfaces with the same characteristics
- Certified anti-radon gas tapes for the perfect sealing of overlaps and gaps on certified membranes, against the passage of radon gas
- Tapes with aluminium support to give perennial stability to UV rays
- Flat or thick double-sided tapes, for the most varied seals

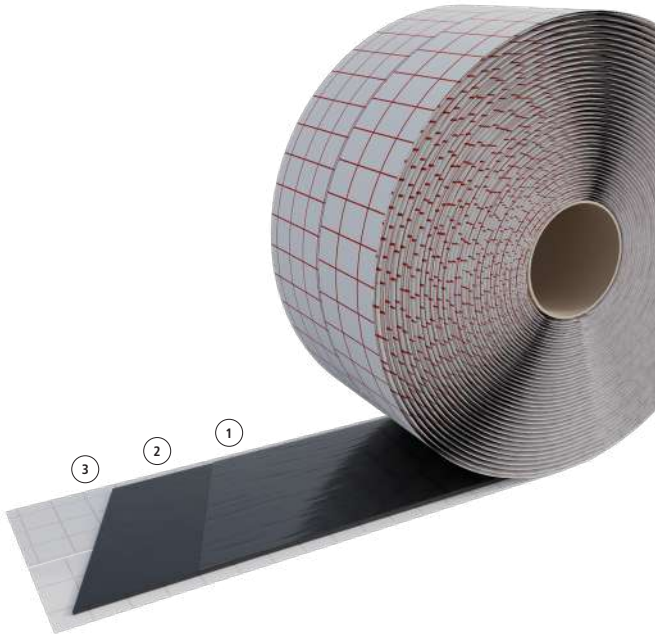
Coll Flexi

QUICK OVERVIEW: STRENGTHS

The most flexible one

- Mono-adhesive butyl tape
- The high flexibility makes it easily adaptable to any laying situation
- Guarantees perfect sealing even in the case of circular cross-section elements
- Dual use, internal and exterior, thanks to the waterproof surface

Features:



Composition:

High flexible PET film (1)

Butylic glue (2)

Half pre-cut silicone liner (3)

Technical data sheet

Glue		**butyl**
Glue carrier material		**high flexible LDPE film**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness		**1,5 mm**
Specific weight	DIN EN ISO 1183-1	**~1,4 g/cm³**
Viscosity	DIN EN ISO 7390	**stable**
Hardness (Shore 00)	DIN EN ISO 868	**~40**
Compressive strength	DTU 39.4	**>0,04 N/mm²**
Elongation at break (film)		**max. 300 %**
Solid content	DIN EN ISO 10563	**>99 %**
Vapour passage resistance μ	DIN EN ISO 12572	**min. 766000**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-40°C / +90°C**
Fire class	DIN 4102	**B2**
	EN 13501-1	**E**
UV stability		**3 months***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll Flexi	02044100	100x15	4	30

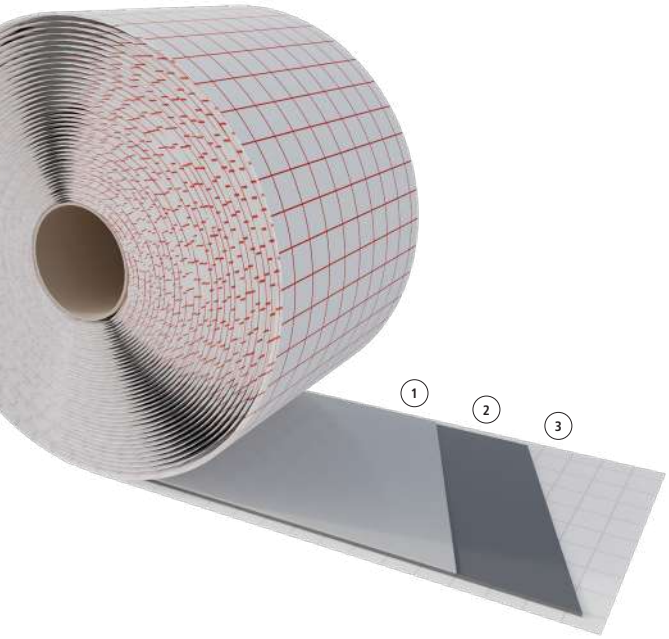
*with reference to the Central European climate

Coll 50 - 80 - 150 - 150 X

QUICK OVERVIEW: STRENGTHS

Precision sealing

- Monoadhesive butyl band
- The pre-cut liner makes it ideal for all linear and corner seals
- Characterized by butyl glue with a high seal and without solvents, suitable for every laying surface.
- Dual use, indoor and outdoor, thanks to the water-resistant surface



Features:

Composition:

1. PE film
2. Butylic glue
3. Silicone liner**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll 50	02044050	50x15	12	30
Coll 80	02044080	80x15	4	30
Coll 150	02044150	150 (75+75) x15	4	30
Coll 150 X	02044151	150 (75+75) x15	2	30

Technical data sheet

Glue		**butyl**
Glue carrier material		**LDPE**
Protection liner		**YES**
Thickness Coll 50 - 150		**1,0 mm**
Thickness Coll 80 - 150 X		**2,0 mm**
Specific weight	DIN EN ISO 1183-1	**~1,4 g/cm³**
Viscosity	DIN EN ISO 7390	**stable**
Hardness (Shore 00)	DIN EN ISO 868	**~40**
Compressive strength	DTU 39.4	**>0,04 N/mm²**
Solid content	DIN EN ISO 10563	**>99 %**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-40°C / +100°C**
Fire class	DIN 4102	**B2**
UV stability		**3 months***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate
**pre-cutted silicone liner in Coll 150 and Coll 150 X versions (75+75 mm)
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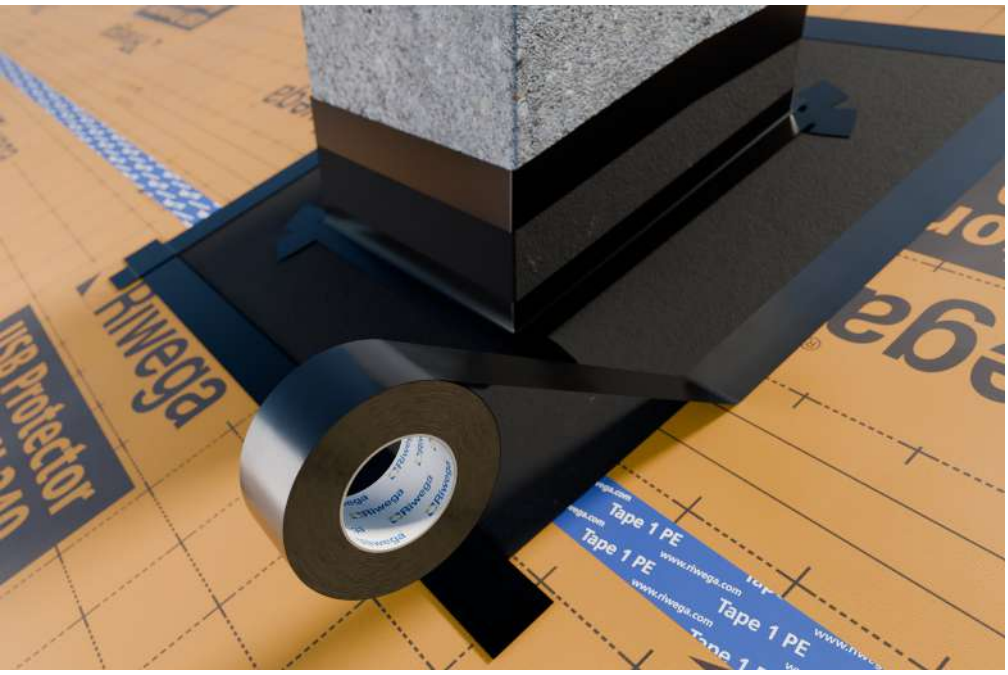
Coll Fire B 75



QUICK OVERVIEW: STRENGTHS

The first fire-certified tape

- Mono adhesive butyl tape
- Class B fire reaction certificate to meet the minimum standards of public buildings
- Particularly suitable for the sealing of USB Fire Zero and USB Vita
- Characterized by butyl glue with a high seal suitable for every laying surface

Features:

Classification:

Technical data sheet

Glue		**butyl**
Glue carrier material		**Alu / PET**
Protection liner		**YES**
TVOC-test	ISO 16000-6	**30 µg/m³**
Thickness		**0,6 mm**
S_d value	UNI EN 1931	**1632 m**
Tensile strength MD/CD**	EN 12311-1	**185 / 200 N/50mm**
Elongation at break MD/CD**	EN 12311-1	**10 / 20 %**
Probe Tack	ASTM D 2979	**7.0 N**
180° Peel Adhesion	ASTM D 1000	**27 N/cm**
Solid content		**100 %**
Vapour passage resistance µ	EN 1931	**2720000**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+0°C / +40°C**
Temperature resistance		**-30°C / +90°C**
Fire class	EN 13501-1	**B-s1, d0**
UV stability		**high***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate
**MD = longitudinal CD = transversal
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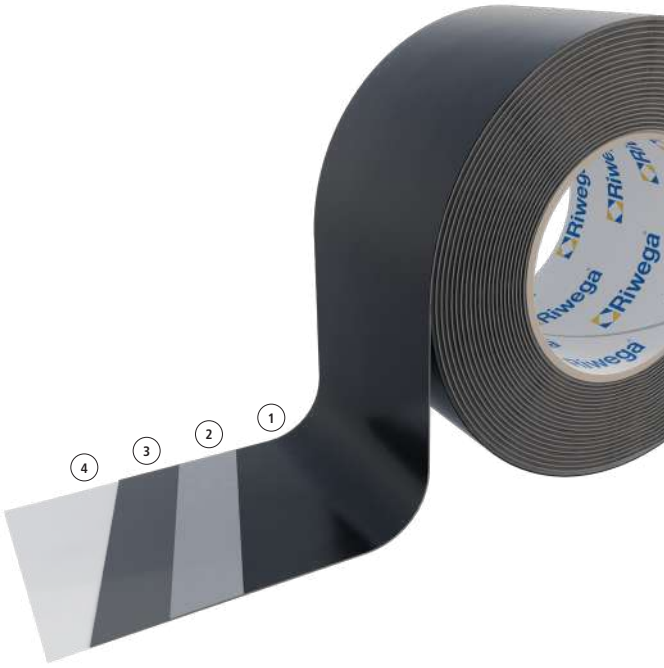

Composition:

PET film (1)
Aluminium film (2)
Butylic glue (3)
Silicone liner (4)

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll Fire B 75	02044060	75x10	8	100

Coll ALU

QUICK OVERVIEW: STRENGTHS

The fitting that is not afraid of UV rays

- Mono adhesive butyl tape
- Ideal for invisible repair of breakages on sheet metal parts
- Perfect for sealing solar and photovoltaic panels
- Particularly resistant to weathering and ageing

Composition:

1. Aluminium film
2. Butylic glue
3. Silicone liner

Features:

Classification:

CE EN 13956

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll ALU 75	02044073	75x10	8	60
Coll ALU 150	02044074	150x10	4	60

Technical data sheet

Glue		**butyl**
Glue carrier material		**alu film**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness		**0,6 mm**
Tensile strength MD/CD**	EN 12311-1	**180 / 190 N/50mm**
Elongation at break MD/CD**	EN 12311-1	**15 / 20 %**
Probe Tack	ASTM D 2979	**8.0 N**
180° Peel Adhesion	ASTM D 1000	**20 N/cm**
Solid content	DIN EN ISO 10563	**100 %**
Vertical scrolling	ISO 7390	**0 mm**
Vapour passage resistance μ	EN 1931	**1530000**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+0°C / +40°C**
Temperature resistance		**-30°C / +90°C**
UV stability		**high***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate
**MD = longitudinal CD = transversal
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Coll ALU Elastic

QUICK OVERVIEW: STRENGTHS

The mouldable connection that is not afraid of UV rays

- Mono adhesive butyl tape
- Aluminium surface, up to 60% stretchable
- For sealing angled elements on ventilated façades
- Flexible, handy and easy to customise

Features:

Classification:

Technical data sheet

Glue		**butyl**
Glue carrier material		**aluminium foil, up to 60% stretchable**
Protection liner		**YES**
TVOC-test	ISO 16000-6	**30 µg/m³**
Thickness		**1,6 mm**
Tensile strength MD/CD**	EN 12311-1	**190 / 305 N/50mm**
Elongation at break MD/CD**	EN 12311-1	**100 / 10 %**
Probe Tack	ASTM D 2979	**9.0 N**
180° Peel Adhesion	ASTM D 1000	**31 N/cm**
Solid content		**100 %**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+5°C / +40°C**
Temperature resistance		**-40°C / +100°C**
Fire class	EN 13501-1	**E**
VOC class	ISO 16000	**A+**
UV stability		**high***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate
**MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

new product

Composition:

60% stretchable Aluminium film (1)

Butylic glue (2)

PE film (3)

Codes and measures

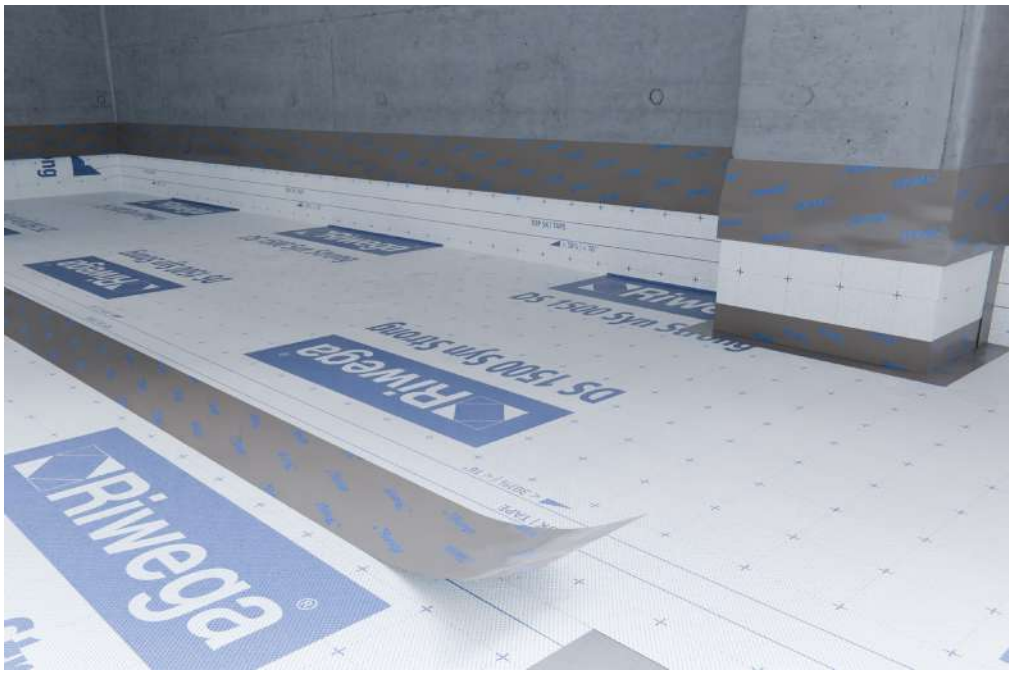
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll ALU Elastic	02044076	80x5	10	80

Coll Radon 150

QUICK OVERVIEW: STRENGTHS

The invincible against radon

- Mono adhesive butyl tape
- Certified solution, ideal for sealing radon gas barriers
- Can be applied "cold", a simple and quick application
- Pre-cut liner for easy corner sealing
- Ideal for creating hermetic and durable connections on various surfaces



new product

Composition:

1. Aluminium film
2. Butylic glue
3. Half pre-cut silicone liner

Features:

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll Radon 150	020445021	150x15	1	-

Technical data sheet

Glue		**butyl**
Glue carrier material		**alu film**
Protection liner		**YES**
Thickness Glue (d)		**1,0 mm**
Thickness Glue carrier material		**0,1 mm**
Butyl specific weight	DIN EN ISO 10563	**~1,5 g/cm³**
Solid content	DIN EN ISO 10563	**>99 %**
Bitumen compatibility		**YES**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-40°C / +100°C**
UV stability		**high***
Radon gas diffusion (D)	ISO/TS 11665-13	**1,6 x 10^{-13} m^2s^{-1}**
Diffusion length (L_D)	ISO/TS 11665-13	**0,26 mm**
Test parameter ($R=d/L_D$)	ISO/TS 11665-13	**3,79**
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate

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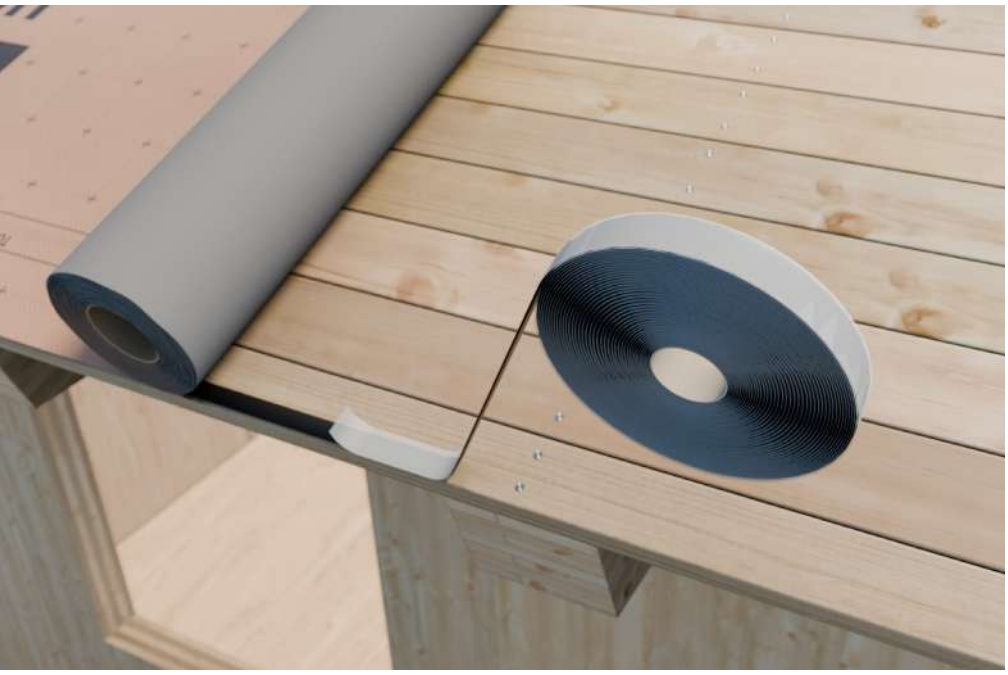
Tape 2 BU 20



QUICK OVERVIEW: STRENGTHS

The most performing adhesive

- Double-sided butyl tape
- Ideal for attaching membranes to any type of structure
- Guarantees seal even in case of movement of the supporting material
- High adhesion butyl glue, solvent-free

Features:

Composition:

Butyl (1)

Silicone liner (2)

Technical data sheet

Glue		**butyl**
Protection liner		**YES**
Width		**20 mm**
Thickness		**1,5 mm**
Specific weight	DIN EN ISO 1183-1	**~1,3 g/cm³**
Viscosity (with thickness <2 mm)	DIN EN ISO 7390	**stable fino a +100°C**
Hardness (Shore 00)	DIN EN ISO 868	**~30**
Compressive strength	DTU 39.4	**>0,03 N/mm²**
Solid content	DIN EN ISO 10563	**>99 %**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +30°C**
Operating temperature		**-40°C / +100°C**
Fire class	DIN 4102	**B2**
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 2 BU	02040315	20x25	14	30

Tape 2 BU 50

QUICK OVERVIEW: STRENGTHS

The most performing adhesive

- Double-sided butyl tape
- Ideal for attaching membranes to any type of structure
- High performance butyl adhesive with nail sealing properties
- Guarantees seal even in case of movement of the supporting material

new product

Composition:

1. Butyl
2. PE-Liner with Fingerlift (protruding liner)

Features:

Classification:

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 2 BU 50	02040350	50x35	8	30

Technical data sheet

Glue		**butyl**
Protection liner		**YES**
Width		**50 mm**
Thickness		**1 mm**
Specific weight	DIN EN ISO 1183-1	**~1,5 g/cm³**
Probe Tack	ASTM D 2979	**7.2 N**
180° Peel Adhesion	ASTM D 1000	**22 N/cm**
180° Peel Ad. at 5°C on concrete		**20 N/cm**
Solid content	DIN EN ISO 10563	**100 %**
Vertical scrolling	ISO 7390	**0 mm**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+0°C / +40°C**
Operating temperature		**-40°C / +100°C**
Fire class	EN 13501-1	**E**
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

Tape 2 CO

QUICK OVERVIEW: STRENGTHS

The ideal connection sealant for wooden houses

- Butyl adhesive cord
- Its conformation makes it perfect for sealing between wood surfaces
- Guarantees the adhesive seal even in the event of movement of the support material
- Characterized by butyl glue with a high seal and free of solvents

Features:

Composition:

Butyl cord (1)

Silicone liner (2)

Technical data sheet

Glue		**butyl**
Protection liner		**YES**
Diameter of the cord		**6 mm**
Specific weight	DIN EN ISO 1183-1	**~1,6 g/cm³**
Viscosity	DIN EN ISO 7390	**stable**
Hardness (Shore 00)	DIN EN ISO 868	**~40**
Compressive strength	DTU 39.4	**>0,05 N/mm²**
Solid content	DIN EN ISO 10563	**>99 %**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +30°C**
Operating temperature		**-40°/+100°C (for short times max. +180°C)**
Ignition temperature	DIN 51794	**>400°C**
Fire class	DIN 4102	**B2**
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tape 2 CO	02040306	6x7	22	30

Seals for windows

R3

A critical point of the air and wind tightness of the building envelope is represented by the installation of window frames. It is necessary to pay close attention to the connections on windows: filling the joint between the window and the masonry with foam and plaster is not enough to create air and wind tightness, since not all construction foams can create an airtight layer.

The Riwega solutions for windows

The FDB tapes were created precisely to create the air and wind tight connection between masonry and counter-frame, or in the absence of a counter-frame, between masonry and window simply and quickly. They consist of a combination of different functional films and plasterable nonwovens. The polyacrylate full-surface adhesive is protected by an easy-to-remove protective film (FL, FingerLift) and is therefore ideal for professional corner and edge sealing in construction.

These adhesive tapes solve various situations on the building site and are:

- Adhesive tapes with variable S_d-values that can be used both indoors and outdoors;
- Adhesive tapes with variable S_d-value in "PLUS" version, with adhesive strength on the entire surface (ideal for installation without counter frame);
- Adhesive tapes with variable S_d-value with reinforcing fabric, for connection to thermal insulation;
- INT and EXT tapes, which can be used both indoors and outdoors.

Other solutions, for sealing door and window frames, also include:

- Butyl adhesive tapes for exterior sealing of the window frame;
- Profiles to create a stable and aesthetically pleasing connection between the window and door system and the thermal insulation package;
- Compri tapes for sealing against driving rain (class BG1) and air/wind (class BGR) at the joints between the frame and counter frame;
- Multifunctional compressive tapes for sealing against driving rain on the door and window frame (class BG1), for air/wind sealing (class BGR) and for thermal (λ=0,048 W/mK) and acoustic (RST,w=41 dB) sealing of the joints between the window and counter frame;
- A low-stretch, elastic and airtight foam for sealing and thermal-acoustic insulation of cavities between masonry and counter-frame or between the masonry and the door or window frame;
- An MS polymer sealant with long-lasting elasticity in a white or transparent finish, for the final sealing of the frame system;
- A compressible sealant made of expanded EPDM, for closing and sealing cavities in existing window systems that need to be renovated.

FDB Vario FL

QUICK OVERVIEW: STRENGTHS

The universal window tape

- Acrylic adhesive tape with variable hygrometry
- Indoor & outdoor use, regulates the passage of vapour according to temperature and humidity
- Guarantees air, wind and waterproofing in the laying joint of windows and doors
- Waterproofing to air, water and wind
- Overplasterable surface

Features:

Classification:

IT UNI 11673-1

EMICODE EC1 PLUS very low emission

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PET.PA**
Thickness	EN 1849-2	**0,63 mm**
S_d value		**0,5 - 20 m**
Air tightness	EN 1026	**a_n ≤0,1 m³/m²h**
Tightness against driving rain	EN 1027	**>600 Pa**
Tensile strength MD/CD*	EN 12311-1	**300 / 80 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**25 / 135 %**
Water column		**>200 cm**
Resistance to water passage	EN 1928	**W1**
Fire reaction class	EN ISO 11925-2	**E**
Emissions	EMICODE®	**EC1 PLUS**
	CMR regulation	**A+**
	ISO 16000	**compliant****
Working temperature		**-10°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**6 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

Composition:

Multilayer non-woven PET.PA (1)

Acrylic glue with pre-cutted liner and Fingerlift (protruding liner) (2)

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
75	02045807	75 (50+25) x25	5	96
100	02045810	100 (75+25) x25	4	96
150	02045815	150 (65+60+25) x25	2	96

**CAM (Criteri Ambientali Minimi Edilizia - IT)
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

FDB Vario Plus FL

QUICK OVERVIEW: STRENGTHS

The window frame is sealed in one quick solution

- Acrylic adhesive tape with variable hygrometry
- Specially designed for systems without subframe
- Indoor and outdoor use
- Regulates the passage of vapour according to temperature and humidity
- Waterproofing to air, water and wind on the laying joint of windows and doors

Composition:

1. Acrylic glue with silicone liner
2. Multilayer non-woven PET.PA
3. Acrylic glue with pre-cutted liner and Fingerlift (protruding liner)

Features:

Classification:

IT UNI 11673-1

GEV-EMICODE EC 1 PLUS very low emission

EMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
75	020458071	75 (50+25) x25	5	96
100	020458101	100 (75+25) x25	4	96
150	020458151	150 (65+60+25) x25	2	96

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PET.PA**
Thickness	EN 1849-2	**0,63 mm**
S_d value		**0,5 - 20 m**
Air tightness	EN 1026	**a_n ≤0,1 m³/m²h**
Tightness against driving rain	EN 1027	**>600 Pa**
Tensile strength MD/CD*	EN 12311-1	**300 / 55 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**25 / 135 %**
Water column		**>200 cm**
Resistance to water passage	EN 1928	**W1**
Fire reaction class	EN ISO 11925-2	**E**
Emissions	EMICODE®	**EC1 PLUS**
	CMR regulation	**A+**
	ISO 16000	**compliant****
Working temperature		**-10°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**6 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

**CAM (Criteri Ambientali Minimi Edilizia - IT)
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

FDB Vario NET

QUICK OVERVIEW: STRENGTHS

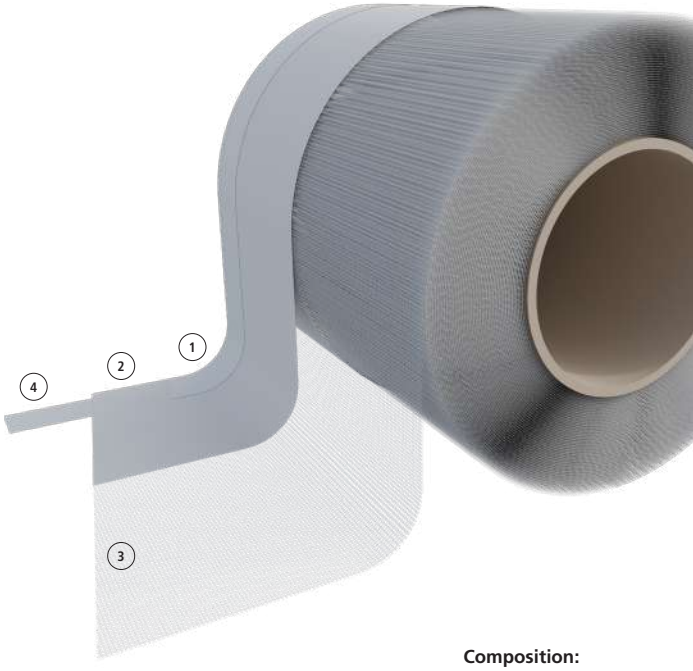
Perfectly sealed window and door next to a heat insulation system

- Variable hygrometric window tape with mesh
- Indoor and outdoor use, regulates the passage of vapour
- With fibre-glass for over plastering
- Double-sided adhesive strip

Features:

Classification:

IT
UNI
11673-1



Composition:

1. Acrylic glue with silicone liner
2. Multilayer non-woven PET.PVC
3. Fiberglass mesh
4. Acrylic glue with silicone liner

Technical data sheet

Glue		**acrylic**
Glue carrier material		**PET.PVC**
Fiberglass mesh for plastering		**100 mm**
S_d value	EN ISO 12572	**0,03 - 15 m**
Permeability coefficient (joints)	EN 1026	**a ~0 m³/[h m (daPa)ⁿ]**
Tightness against driving rain (joints)	EN 1027	**≥1050 Pa**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +45°C**
Temperature resistance		**-40°C / +80°C**
Fire reaction class	EN 13501-1	**E**
UV stability		**6 months**
Storage place		**dry, protected from UV rays, +1°C / +20°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
FDB Vario NET	02045775	75x30	4	24

FDB INT VSK 350 FL

QUICK OVERVIEW: STRENGTHS

The complete adhesive tape for indoors

- Vapour control adhesive tape
- Inside use
- Seals connections on wooden walls airtightly
- Increased weight for high mechanical strength
- Overplasterable surface

Composition:

1. Multilayer non-woven PP.PE
2. Acrylic glue with pre-cutted liner

Features:

Classification:

IT UNI 11673-1

GEV-EMICODE EC 1 PLUS very low emission

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
350	02046250	350 (15+167,5+167,5) x25	1	48

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PP.PE**
Thickness	DIN 53855	**0,4 mm**
S_d value	EN ISO 12572	**40 m**
Air tightness	EN 1026	**a_n ≤0,1**
Resistance to water passage	EN 1928	**W1**
Tensile strength MD/CD*	EN 12311-1	**200 / 160 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**140 / 160 %**
Water column		**>200 cm**
Fire reaction class	EN 13501-1	**E**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**-5°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**3 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

*MD = longitudinal CD = transversal

FDB EXT VSK 350 FL

QUICK OVERVIEW: STRENGTHS

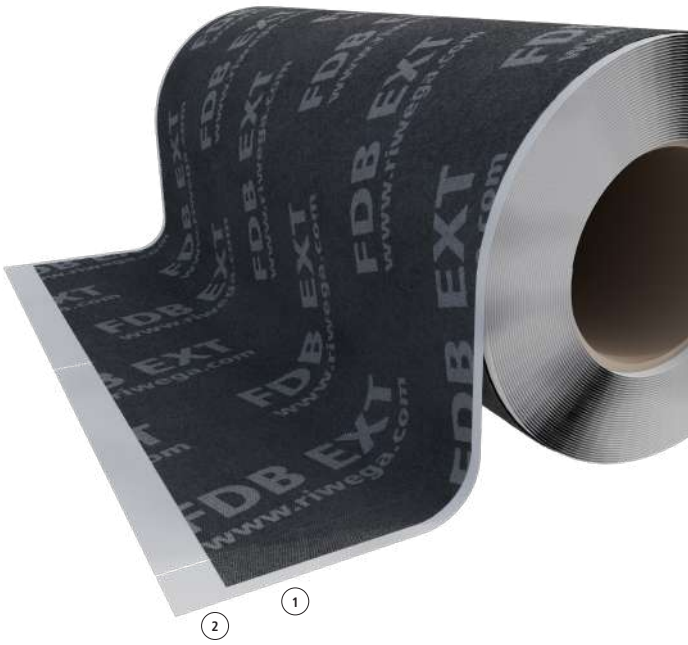
The complete adhesive tape for outdoors

- Breathable adhesive tape
- Outside use
- Ideal for waterproofing the external sill support
- Increased weight for high mechanical strength
- Overplasterable surface

Features:

Classification:

IT
UNI
11673-1



Composition:

Multilayer non-woven PP.PP (1)

Acrylic glue with pre-cutted liner (2)

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PP.PP**
Thickness	DIN 53855	**0,5 mm**
S_d value	EN ISO 12572	**0,05 m**
Air tightness	EN 1026	**a_n ≤0,1**
Resistance to water passage	EN 1928	**W1**
Tensile strength MD/CD*	EN 12311-1	**250 / 120 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**90 / 150 %**
Water column		**>200 cm**
Fire reaction class	EN 13501-1	**E**
Working temperature		**-10°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**3 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
350	02046135	350 (15+167,5+167,5) x25	1	72

*MD = longitudinal CD = transversal

FDB INT VSK Plus FL

QUICK OVERVIEW: STRENGTHS

The complete adhesive tape for indoors, with reinforced surface

- Breathable adhesive tape
- Inside use
- Windtight sealing of door and window joints
- Increased weight for high mechanical strength
- Overplasterable surface

Composition:

1. Acrylic glue with silicone liner
2. Multilayer non-woven PP.PE
3. Acrylic glue with pre-cutted liner

Features:

Classification:

IT UNI 11673-1

EMICODE EC1 PLUS very low emission

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
85	02046208	85 (25+60) x25	4	72
100	02046210	100 (25+75) x25	4	72

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PP.PE**
Thickness	DIN 53855	**0,49 mm**
S_d value	EN ISO 12572	**40 m**
Air tightness	EN 1026	**a_n ≤0,1**
Tensile strength MD/CD*	EN 12311-1	**300 / 55 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**25 / 135 %**
Fire reaction class	EN 13501-1	**E**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+5°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**do not expose to UV rays**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

*MD = longitudinal CD = transversal

FDB EXT VSK Plus FL

QUICK OVERVIEW: STRENGTHS

The complete adhesive tape for indoors, with reinforced surface

- Breathable adhesive tape
- Outside use
- Windtight sealing of door and window joints
- Increased weight for high mechanical strength
- Overplasterable surface

Features:

Classification:

IT
UNI
11673-1

Composition:

Acrylic glue with silicone liner (1)

Multilayer non-woven PP.PP (2)

Acrylic glue with pre-cutted liner (3)

Technical data sheet

Glue		**acrylic with Fingerlift**
Glue carrier material		**PP.PP**
Thickness	DIN 53855	**0,62 mm**
S_d value	EN ISO 12572	**0,08 m**
Air tightness	EN 1026	**a_n ≤0,1**
Resistance to water passage	EN 1928	**W1**
Tensile strength MD/CD*	EN 12311-1	**290 / 31 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**19 / 130 %**
Water column		**>200 cm**
Fire reaction class	EN 13501-1	**E**
Working temperature		**+5°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**6 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
85	02046108	85 (25+60) x25	4	72
100	02046110	100 (25+75) x25	4	72

*MD = longitudinal CD = transversal

FDB INT

QUICK OVERVIEW: STRENGTHS

The perfect internal sealing of windows and doors

- Breathable adhesive tape
- Inside use
- Windtight sealing of door and window joints
- Overplasterable surface
- Available in several types to ensure tightness on every laying surface

Features:

Classification:

IT UNI 11673-1

GEV-EMICODE EC 1 PLUS very low emission

Composition:

1. Multilayer non-woven PET.PE.PET
2. Butylic strip / acrylic strip
3. Silicone liner

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
FDB INT AC 75	02045512	75x30	5	96
FDB INT AC+AC 75	02045522	75x30	5	96
FDB INT AC+BU 75	02045532	75x25	5	96
FDB INT AC+BU 100	02045533	100x25	4	96
FDB INT AC+BU 150	02045534	150x25	2	96

FDB INT AC 100/150 mm and FDB INT AC+AC 100/150 mm available on request

Technical data sheet

Glue		**acrylic/butylic**
Glue carrier material		**PET.PE.PET**
Thickness	DIN 53855	**0,49 mm**
S_d value	EN ISO 12572	**~40 m**
Air tightness	EN 1026	**$a_n \leq 0,1$**
Tensile strength MD/CD*	EN 12311-1	**300 / 55 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**25 / 135 %**
Fire reaction class	EN 13501-1	**E**
Emissions	EMICODE®	**EC1PLUS**
Working temperature		**+5°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**do not expose to UV rays**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

*MD = longitudinal CD = transversal

FDB EXT

QUICK OVERVIEW: STRENGTHS

The perfect external sealing of window and door

- Breathable adhesive tape
- Outside use
- Windtight sealing of door and window joints
- Overplasterable surface
- Available in several types to ensure tightness on every laying surface

Features:

Classification:

IT
UNI
11673-1

Composition:

Multilayer non-woven PET.PP.PET (1)

Butylic strip / acrylic strip (2)

Silicone liner (3)

Technical data sheet

Glue		**acrylic/butylic**
Glue carrier material		**PET.PP.PET**
Thickness	DIN 53855	**0,37 mm**
S_d value	EN ISO 12572	**0,04 m**
Resistance to water passage	EN 1928	**W1**
Tensile strength MD/CD*	EN 12311-1	**290 / 31 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**19 / 130 %**
Fire reaction class	EN 13501-1	**E**
Working temperature		**+5°C / +40°C**
Temperature resistance		**-40°C / +80°C**
UV stability		**3 months**
Storage place		**dry, protected from UV rays**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
FDB EXT AC 75	02045612	75x30	5	96
FDB EXT AC+AC 75	02045622	75x30	5	96
FDB EXT AC+BU 75	02045632	75x25	5	96
FDB EXT AC+BU 100	02045633	100x25	4	96
FDB EXT AC+BU 150	02045634	150x25	2	96

FDB EXT AC 100/150 mm and FDB EXT AC+AC 100/150 mm available on request

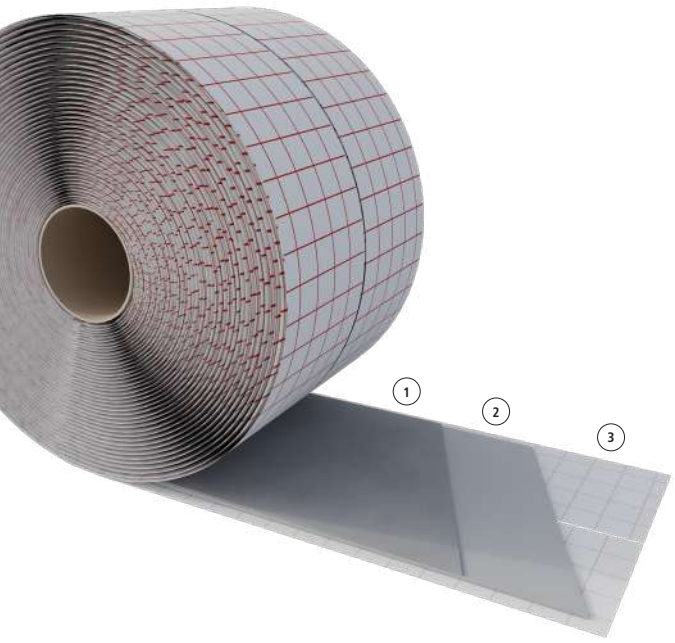
*MD = longitudinal CD = transversal

Air Coll

QUICK OVERVIEW: STRENGTHS

Strong plastering adhesion

- Monoadhesive butyl band
- Excellent for stitches that require subsequent smoothing
- Ideal for waterproofing the external sill support
- The pre-cut liner makes it ideal for all linear and corner seals
- Characterized by butyl glue with a high seal and without solvents, suitable for every laying surface



Composition:

1. Non-woven fabric in PP
2. Butylic glue
3. Half pre-cut silicone liner

Features:

Classification:

IT
UNI
11673-1

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Air Coll 75 X	02203207	75x25	4	30
Air Coll 150 X	02203215	150x25	2	30

Technical data sheet

Glue		**butyl**
Glue carrier material		**non-woven fabric in PP**
Protection liner		**YES**
Thickness		**1,0 mm**
Specific weight	DIN EN ISO 1183-1	**~1,4 g/cm³**
Viscosity	DIN EN ISO 7390	**stable**
Hardness (Shore 00)	DIN EN ISO 868	**~40**
Compressive strength	DTU 39.4	**>0,04 N/mm²**
Solid content	DIN EN ISO 10563	**>99 %**
Emissions	EMICODE®	**very low**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-40°C / +100°C**
Fire class	DIN 4102	**B2**
UV stability		**3 months***
Storage place		**dry, protected from UV rays, ~20°C**
Storage period		**max. 12 months**

*with reference to the Central European climate

FDB Profile

QUICK OVERVIEW: STRENGTHS

Windows and doors next to plasters

- Soffit profile
- Indoor and outdoor use, to connect the window to the thermal insulation system
- Self-adhesive, equipped with expanding tape and available in different types
- Air, water and wind tight joints on windows and doors

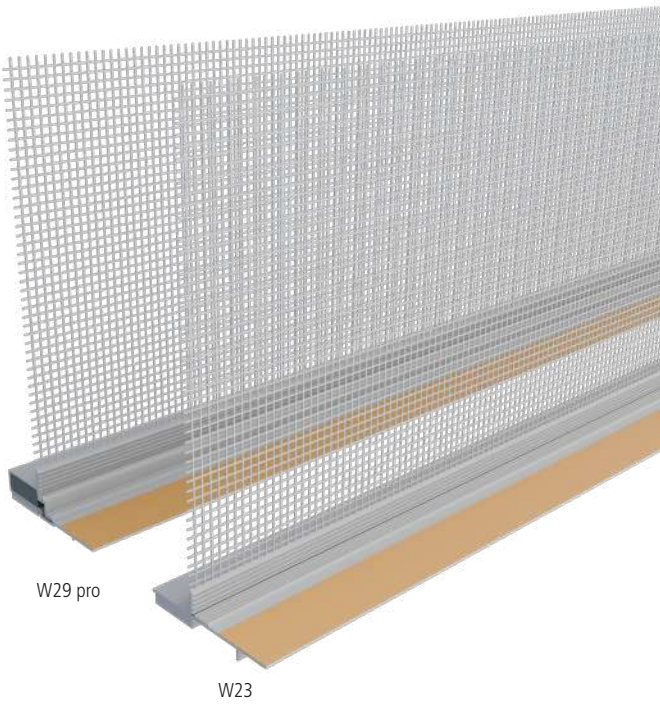
Features:

Classification:

IT
UNI
11673-1

W23

W29 pro



W29 pro

W23

Codes and measures

Version	Code	Material	Seal	Measures (cmxmm)	Thickness (mm)	L mesh (mm)	Dimension (mm)	Box (m)
W23	02046023	Plastic	PE	240x18	6	250	4x4	60
W29 pro	02046029	Plastic	PE+PUR	240x25	10	125	4x4	60

GAE BG1

QUICK OVERVIEW: STRENGTHS

The self-expanding BG1 class

- Precompressed self-expanding seal
- The elasticity of the joint, is resistant to expansion and vibrations
- Double use, internal and external (high water tightness)
- Ideal for ensuring the thermo-acoustic insulation of the connection joints

Composition:

1. Pre-compressed polyurethane foam
2. Polyester reinforced acrylic glue
3. Silicone liner

Codes and measures

Version	Code	Measures (mmxm)	Joints (mm)	Box (pc)
GAE BG1 10	02143010	10x13	1-4	30
GAE BG1 15	02143015	15x12	2-6	20
GAE BG1 20	02143020	20x8	4-9	15
GAE BG1 30	02143030	30x4,3	6-15	10

Features:

Classification:

DE EN 12354-3 **44 dB** | IT UNI 11673-1 | ift Rosenheim **≥600 Pa** | CE EN 12208 EN 12207 | EMICODE EC1 PLUS

Technical data sheet

Material		**polyurethane foam**
Glue		**acrylic**
Protection liner		**YES**
Stress class	DIN 18452:2009	**BG1 e BGR**
Permeability coefficient (joints)	DIN EN 12114	**$a_n \leq 1{,}0\ m^3/[h\ m\ (daPa)^{2/3}]$***
Tightness against driving rain	DIN EN 1027	**≥600 Pa***
Noise reduction from joints	DIN EN 12354-3	**$R_{ST,w}\ (C;C_{tr}) = 44\ (-1;-2)$ dB**
Compat. with other builiding materials	DIN 18542:2009	**compliant**
Resist. to UV and atmospheric agents	DIN 18542:2009	**compliant**
Dimensional tolerance	DIN 7715 T5 P3	**compliant**
Thermal conductivity (λ)	DIN EN 12667	**0,043 W/mK**
Vapour passage resistance μ	DIN EN ISO 12572	**≤100**
S_d value (over 50 mm length)	DIN EN ISO 12572	**≤0,5**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature	DIN 18542:2009	**-30°C / +90°C**
Fire class	DIN 4102-1	**B1**
Storage place		**dry, protected from UV rays, +1°C / +20°C**
Storage period		**max. 24 months**

*ift Rosenheim

GAE BG2

QUICK OVERVIEW: STRENGTHS

The self-expanding BG2 class

- Precompressed self-expanding seal
- The elasticity of the joint, resistant to expansion and vibrations
- Suitable for airtight sealing of various joints in the building
- Ideal for ensuring the thermo-acoustic insulation of the connection joints

Features:

Classification:

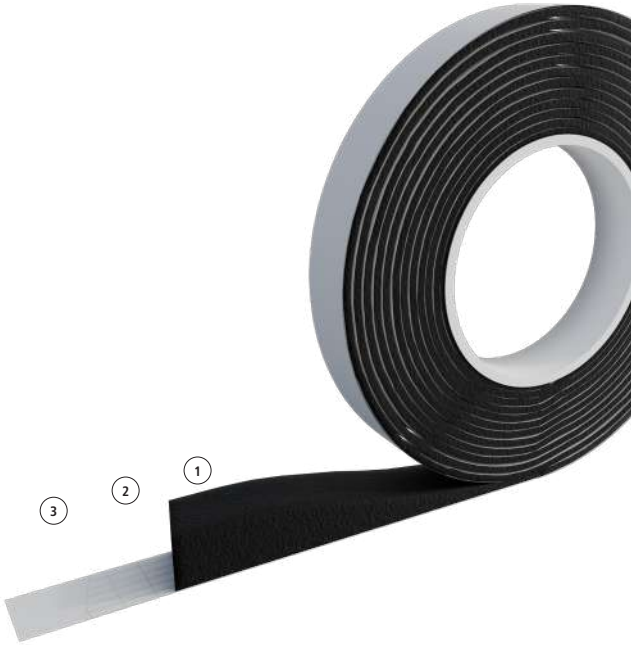
IT UNI 11673-1

CE EN 12208 EN 12207

GEV-EMICODE EC 1 PLUS sehr emissionsarm

Technical data sheet

Material		**polyurethane foam**
Glue		**acrylic**
Protection liner		**SI**
Stress class	DIN 18452:2009	**BG2**
Permeability coefficient (joints)	DIN EN 12114	**$a_n \leq 1{,}0$ m³/[h m (daPa)^n]**
Tightness against driving rain	DIN EN 1027	**≥300 Pa**
Compat. with other builiding materials	DIN 18542:2009	**compliant**
Resist. to UV and atmospheric agents	DIN 18542:2009	**compliant**
Dimensional tolerance	DIN 7715 T5 P3	**compliant**
Thermal conductivity (λ)	DIN EN 12667	**0,043 W/mK**
Vapour passage resistance μ	DIN EN ISO 12572	**≤100**
S_d value (over 50 mm length)	DIN EN ISO 12572	**≤0,5**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature	DIN 18542:2009	**-30°C / +90°C**
Fire class	DIN 4102-1	**B1**
Storage place		**dry, protected from UV rays, +1°C / +20°C**
Storage period		**max. 12 months**



Composition:

Pre-compressed polyurethane foam (1)

PET reinforced acrylic glue (2)

Silicone liner (3)

Codes and measures

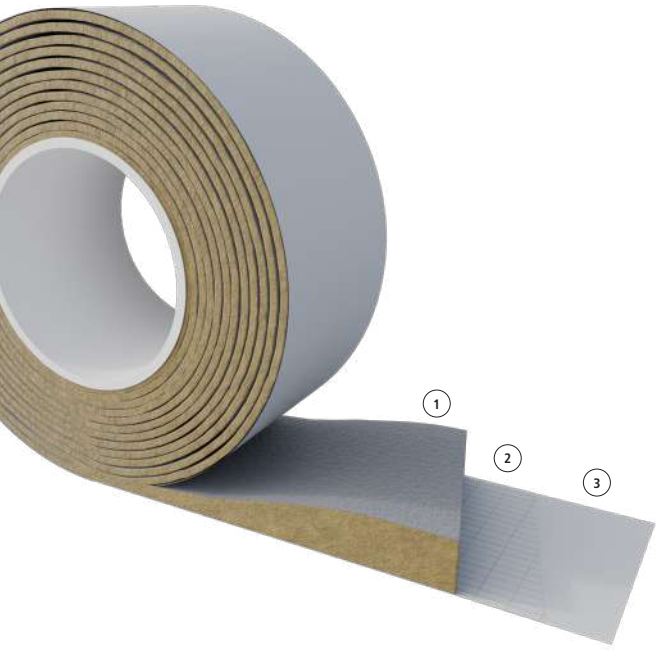
Version	Code	Measures (mmxm)	Joints (mm)	Box (pc)
GAE BG2 20	02142017	20x12	2-6	15
GAE BG2 30	02105020	30x4,3	6-15	10

GAE Trio

QUICK OVERVIEW: STRENGTHS

The expanding tape with three functions

- Precompressed self-expanding seal
- Triple function: air, wind and waterproofing, sound insulation
- Control of the vapour passage
- The elasticity of the joint, is resistant to expansion and vibrations
- Function as thermal and acoustic insulation of the connection points



Composition:

1. Pre-compressed polyurethane foam (yellow part inside)
2. Acrylic glue
3. Silicone liner

Features:

Classification:

DE EN 12354-3 **41 dB** | IT UNI 11673-1 | CE EN 12114 EN 1027 | GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

Material		**polyurethane foam**
Glue		**acrylic**
Stress class	DIN 18452:2009	**BG1 e BGR**
Permeability coefficient (joints)	DIN EN 12114	**$a_n \leq 0{,}1$ m³/[h m (daPa)^n]**
Tightness against driving rain	DIN EN 1027	**≥600 Pa**
Noise reduction from joints	DIN EN 12354-3	**$R_{ST,w}$ ($C;C_{tr}$) = 41 (-1;-1) dB**
Compat. with other builiding materials	DIN 18542:2009	**compliant**
Resist. to UV and atmospheric agents	DIN 18542:2009	**compliant**
Value-U (window profile=70 mm)	DIN EN 4108-3	**0,8 W/m²K**
Value-U (window profile=80 mm)	DIN EN 4108-3	**0,7 W/m²K**
Value-U (window profile=90 mm)	DIN EN 4108-3	**0,6 W/m²K**
Thermal conductivity (λ)	DIN EN 12667	**0,048 W/mK**
Vapour passage resistance μ	DIN EN ISO 12572	**≤100**
Vapour pressure gradient		**permeable externally**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature	DIN 18542:2009	**-30°C / +80°C**
Fire class	DIN 4102-1	**B1**
Storage place		**dry, protected from UV rays, +1°C / +20°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Joints (mm)	Box (pc)
GAE Trio 54	02150056	54x5,6	5-10	5
GAE Trio 64	02150064	64x4,3	7-15	4
GAE Trio 74	02150074	74x3,3	10-20	4

Elastic Foam

QUICK OVERVIEW: STRENGTHS

The high elasticity certified for airtightness

- Polyurethane monocomponent foam
- Highly insulating viscoelastic airtight foam
- Guarantees thermal and acoustic insulation of the connection joints
- High elasticity even in case of structure movements
- Low expansion foam to guarantee airtightness

Features:

Classification:

AT Önorm EN 1026 Önorm EN 12207 600 Pa

IT UNI 11673-1

GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

Material		**polyurethane monocomponent foam**
Density	EN ISO 10563	**15 / 20 kg/m³**
Output free foaming (20°C/65% UR)	FEICA TM 1003	**~38 l (dm³)**
Thermal conductivity	DIN 56612	**~0,0365 W/mK**
Vapour passage resistance μ	EN 12086	**19**
Joint acoustic insulation (joint 10 mm x 100 mm)	Önorm EN ISO 10140	**$R_{s,w}$ (C; Ctr): 63 (-2;-5) dB**
Air tightness	EN 1026/EN 12207	**up to 600 Pa**
Cuttable time (20°C/65% UR)		**15 - 20 min.**
Formation of skin (20°C/65% UR)		**8 - 12 min.**
Fire class	DIN 4102-1	**B3**
Emissions	EMICODE®	**EC1 PLUS**
Working can temperature		**+10°C / +30°C**
Working environment temperature		**+5°C / +35°C**
Optimal working temperature		**+15°C / +25°C**
Temperature resistance		**-40°C / +80°C**
Storage place		**dry, protected from UV rays, max. 20°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Content (ml)	Box (pc)	Pallet (box)
Can	02040505	750	12	56

Sil Power Fix

QUICK OVERVIEW: STRENGTHS

The elastic sealant, durable and invisible

- Ms Polymer sealant
- Ideal for air- and windtight sealing of any interruptions of the building envelope
- Completely invisible and flexible joint; internal and external use
- Particularly resistant to expansions and vibrations

Features:

Classification:

IT UNI 11673-1

CE EN 15651

GEV-EMICODE EC 1 PLUS very low emission

Codes and measures

Version	Code	Content (ml)	Box (pc)	Pallet (box)
Colourless	02040408	290	20	60
White	02040409	290	20	60

Technical data sheet

Material		MS polimero	
Colour		Colourless	White
Density		~1,05 g/cm³	~1,4 g/cm³
Output		30 ml/m	
Hardness (Shore A)		~22	~25
Max. joint deformation		±25 %	
Elongation at break		npd*	250 %
Overpaintable		on complete hardening	
Formation of skin (23°C/50% UR)		~10 min.	~60 min.
Drying (23°C/50% UR)		~2 mm/24 h	
Emissions	EMICODE®	-	EC1 PLUS
Working temperature		+5°C / +40°C	
Operating temperature		-20°C / +100°C	
Fire class	EN 13501-1	E	
Classification facade elements	EN 15651-1	F-INT	25LM
Classification bathroom plumbings	EN 15651-3	npd*	XS1
Classification walkways	EN 15651-4	npd*	25LM
Storage place		dry, protected from UV rays, +5°C / +25°C	
Storage period		max. 12 months	

*no performance determinated

Riwega Srl is not responsible for negligent and improper use of its products

Air and wind tightness

How much damage can be caused by a crack?
Dispersion of heat, condensation, drafts, and passage of noise are just a few problems associated with inadequate installation of the roof or wall package.

After years of experience in this sector, Riwega has acquired the skills to **prevent the inconveniences caused by serious construction errors**, providing solutions to possible damage.

To avoid evil surprises during the construction phase, high quality products have been produced, such as **products for windows, sealants, adhesive tapes** and the AIR Stop Line.

Nail sealing products

Air or wind tightness very often finds a solution with the use of specific seals, that can be produced in various materials: polyethylene or PVC foams, bitumen bands or polyurethane-based liquid solutions.

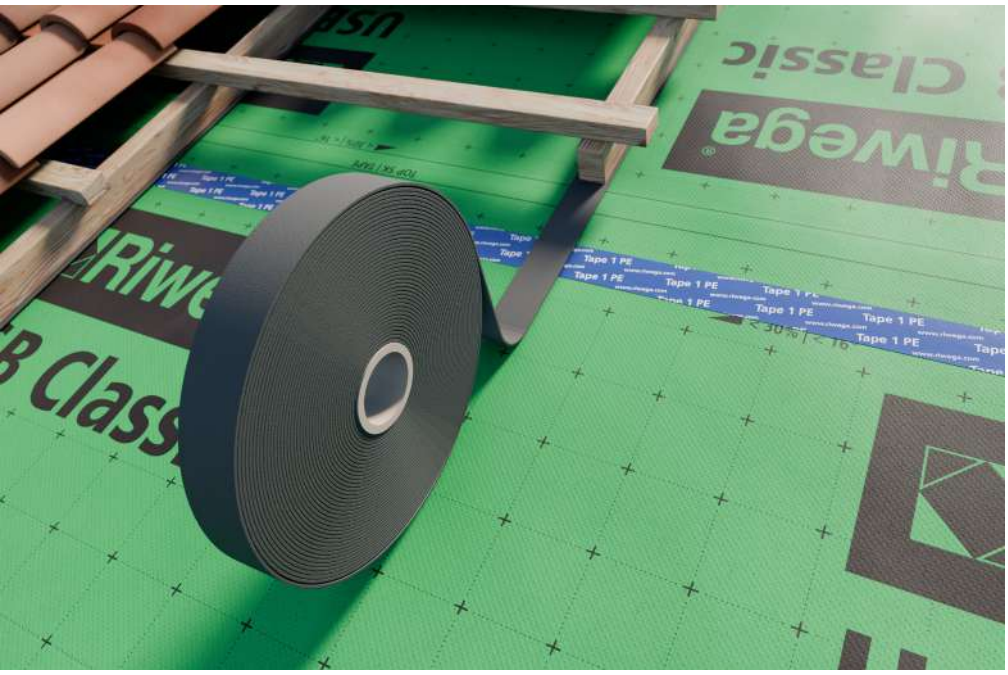
Riwega's seal

Using the range of products offered by Riwega, the holes made by the screws/nails for fixing the roof battens can be sealed; these products also find application in the laying of structures for plasterboard or for ventilated facades, as they seal holes on the vapour control layers or in the breathable membranes against air or wind passage.

Technical solutions to assist you with professional waterproofing, such as:

- Continuous single-sided polyethylene foam nail sealing tape with acrylic adhesive. Bonding should always be to the waterproofing membrane (not to the counter batten), along the counter batten line;
- Continuous double-sided polyethylene foam nail sealing tape with a double layer of acrylic adhesive. It can be glued to the waterproofing membrane as well as to the wooden battens. With this nailing tape, the counter battens can be prepared in advance and fixed to the roof at a later stage;
- One-sided, continuous bitumen-based nail sealing tape. Bonding should be done above the waterproofing membrane (not on the counter batten), along the counter batten line;
- Single nail seals are made of PVC foam with acrylic adhesive on one side. Should be glued to the waterproofing;
- Polyurethane-based sealing liquid. It should be applied directly to the counter batten using the appropriate two-way dispensing nozzle, immediately before it is positioned and fixed to the waterproofing membrane. The reaction of the liquid forms 2 sealing beads on the edges of the counter-battening.

Tip KONT



QUICK OVERVIEW: STRENGTHS

The continuous nail sealing tape

- Single-sided adhesive nail sealing tape
- Guarantees air-, wind- and water tightness of the breathable membranes
- Thanks to its high elasticity it is resistant to dilations and vibrations
- Wall and roof application

Features:

Classification:

AT
Önorm
B 3647

Composition:

PE foam (1)

Acrylic glue (2)

Technical data sheet

Material		**PE foam**
Glue		**acrylic**
Protection liner		**NO**
Thickness		**3 mm**
Specific weight		**25 / 30 kg/m³**
Peel adhesion	DIN EN 1939	**≥5 N/25 mm**
Shear stregth	DIN EN 1943	**500 g/625mm²**
Working temperature		**+10°C / +30°C**
Temperature resistance		**-30°C / +80°C**
Resistance to condensation		**high**
Resistance to aging		**limited**
UV stability		**limited**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Codes and measures

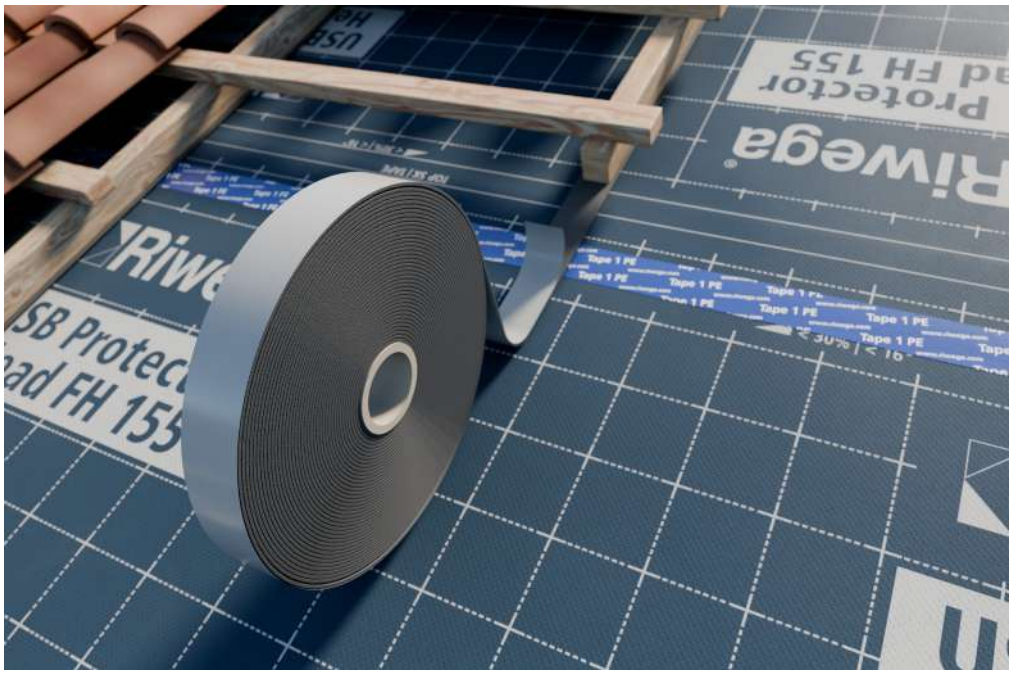
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tip KONT 60	02045001	60x30	10	18
Tip KONT 70	020450017	70x30	9	18
Tip KONT 80	02045003	80x30	7	18

Tip KONT DUO

QUICK OVERVIEW: STRENGTHS

The continuous double-adhesive nail sealing tape

- Double-sided adhesive nail sealing tape
- Fast and precise installation thanks to the double adhesive surface
- Guarantees air-, wind- and water tightness of the breathable membranes
- Wall and roof application



Composition:

1. Silicone liner
2. Acrylic glue
3. PE foam
4. Acrylic glue

Features:

Classification:

AT
Önorm
B 3647

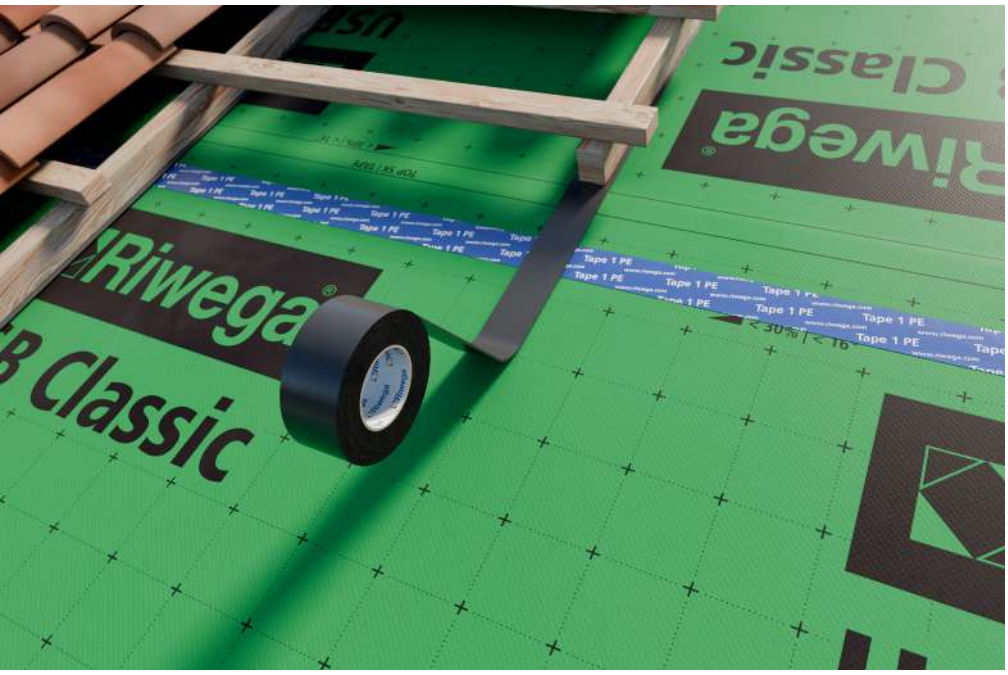
Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tip KONT DUO 50	020450041	50x30	10	18
Tip KONT DUO 60	02045004	60x30	10	18

Technical data sheet

Material		**PE foam**
Glue		**acrylic**
Protection liner		**YES**
Thickness		**3 mm**
Specific weight		**25 / 30 kg/m³**
Peel adhesion	DIN EN 1939	**≥5 N/25 mm**
Shear stregth	DIN EN 1943	**500 g/625mm²**
Working temperature		**+10°C / +30°C**
Temperature resistance		**-30°C / +95°C**
Resistance to condensation		**high**
Resistance to aging		**high**
UV stability		**limited**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Tip KONT Bitum



QUICK OVERVIEW: STRENGTHS

The bituminous nail sealing tape

- Continuous nail sealing tape
- Particularly resistant to UV rays and ageing
- Guarantees air, wind and water tightness of the breathable membranes
- Thanks to its high elasticity it is resistant to dilations and vibrations

Features:

Classification:

AT
Önorm
B 3647

Composition:

PE film (1)

Adhesive bitumen (2)

Silicone liner (3)

Technical data sheet

Material		**bitumen/PE film**
Glue		**adhesive bitumen**
Protection liner		**YES**
Thickness		**~1,2 mm**
Colonna d'acqua		**>1000 cm**
Working temperature		**≥+5°C****
Temperature resistance		**≥-5°C**
UV stability		**6 months***
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

*with reference to the Central European climate
**if necessary, heat the surface to improve adhesion
Riwega Srl is not responsible for negligent and improper use of its products

Codes and measures

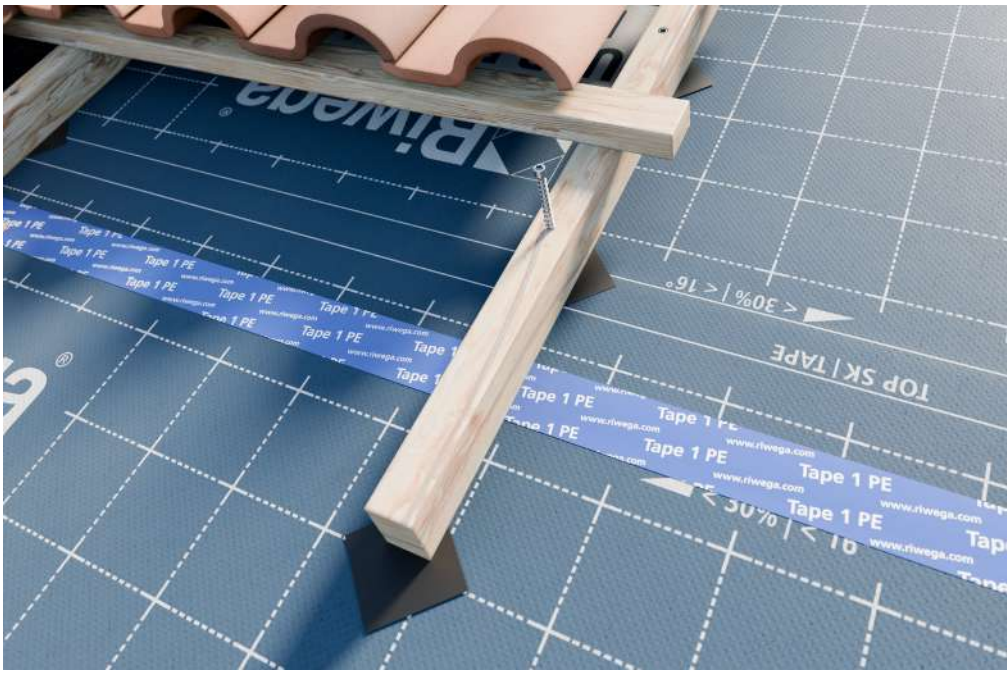
Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Tip KONT Bitum 60	020600609	60x25	6	24
Tip KONT Bitum 70	020600709	70x25	6	24
Tip KONT Bitum 80	020600809	80x25	4	24

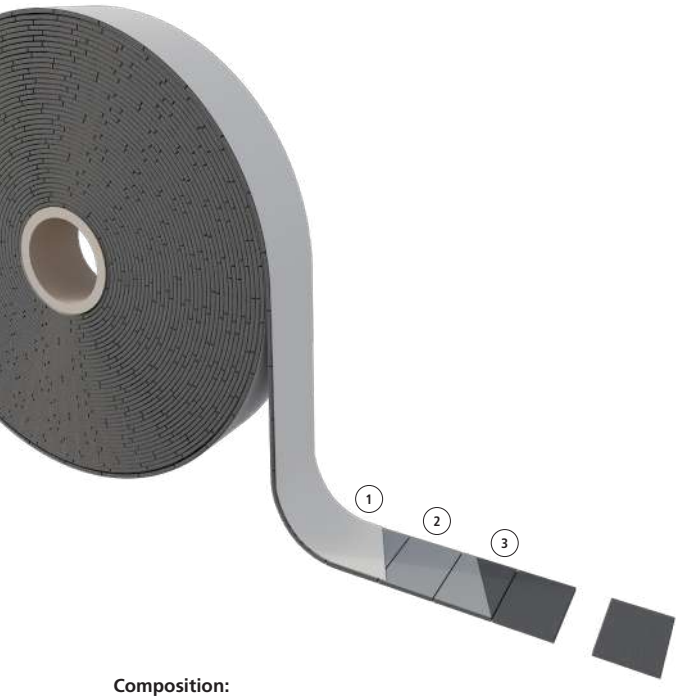
Tip 60 / Tip 80

QUICK OVERVIEW: STRENGTHS

The punctual nail sealing

- Self-adhesive single nail sealing patch
- Guarantees air, wind and water tightness of the breathable membranes
- Thanks to its high elasticity it is resistant to dilations and vibrations
- Different measurements for different needs





Composition:

1. Silicone liner
2. Acrylic glue
3. PVC foam

Features:

Codes and measures

Version	Code	Measures (mmxmm xm)	Roll (units)	Box (pc)
Tip 60	02045000	60x40 x20	500	10
Tip 80	02045002	80x80 x20	250	8

Technical data sheet

Material		**PVC foam**
Glue		**acrylic**
Protection liner		**YES**
Thickness		**5 mm**
Specific weight		**120 kg/m³**
Peel adhesion	DIN EN 1939	**≥5 N/25 mm**
Shear stregth	DIN EN 1943	**250 g/625mm²**
Working temperature		**+10°C / +30°C**
Temperature resistance		**-30°C / +100°C**
Resistance to condensation		**high**
Resistance to aging		**high**
UV stability		**high**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Top Seal

QUICK OVERVIEW: STRENGTHS

The liquid nail sealing

- Nail sealing in a cartridge
- Equipped with a special nozzle for a homogeneous and fast laying
- Guarantees air-, wind- and water tightness of the breathable membranes
- Excellent value for money

Features:

Classification:

AT
Önorm
B 3647

Technical data sheet

Material		**1-Kwet cross-linked polyurethane**
Viscosity (20°C)		**~1500 mPa.s**
Density (20°C)	EN 542	**~1,15 g/cm³**
Formation of skin (20°C)		**~12 min.**
Partial hardening (20°C/50% UR)		**~24 h**
Total hardening (20°C/50% UR)		**~7 d**
Output		**~20 g/m**
Working temperature sigillante		**+7°C / +30°C**
Working temperature ambiente		**from -5°C**
Storage place		**dry, protected from UV rays, max. 25°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Content (ml)	Box (pc)	Pallet (box)
Cartridge	020450042	1000	10	64
Nozzle FD	020450043	-	1	-

Ground connections

The most common problem with improperly assembled timber structures is undoubtedly the decay of the walls in the area of the foundation. This is an unfortunately widespread phenomenon that occurs a few years after construction and irrevocably damages the wooden structure, subsequently requiring extensive and very costly repairs to the lower part of the walls.

For this reason, Riwega has developed several solutions for sealing the base of the wall to the concrete foundation, but also some solutions for sealing wooden walls, especially on the exterior where a good base must be created for the thermal insulation composite system.

The offered solutions can be used on the construction site or already during pre-production. They are made of different materials such as butyl, bitumen and synthetic material. The product range consists of, among other solutions:

- A butyl adhesive tape with polypropylene fleece on the back, for the bottom/outer sealing of timber walls; it can be applied to the timber wall on site or during pre-production;
- A butyl adhesive tape with polypropylene fleece on the back, for the bottom/outer sealing of wooden walls. It can be applied during prefabrication or later on-site for sealing between the timber wall and the concrete curb (or slab);
- A polyethylene tape with 2 EPDM gaskets for sealing on the underside of the timber wall. The application of this product works if the base or foundation has unevenness or irregularities of 10 mm or less. It can be applied on-site or during prefabrication, by tacking it to the bottom surface of the timber wall;
- An EPDM tape with 2 pre-compressed polyurethane foam strips to seal and waterproof the underside of the timber wall; the application of this product works if the concrete base has unevenness or irregularities of a maximum of 20 mm; it can be applied by stapling it to the underside of the timber wall or by using a butyl adhesive strip on the lower and outer surface of the wall, depending on the version. It can be applied on-site or during prefabrication;
- A bitumen tape, covered with a non-woven polypropylene fabric. It is used to seal the underside of the timber wall and can only be applied on site.

Coll Vlies Plus

QUICK OVERVIEW: STRENGTHS

The solution against rising damp

- Self-adhesive butyl strip
- Designed to waterproof the connection point of the wooden wall over the foundation
- Can be applied cold to all building materials, prevents rising damp
- Can be over-plastered

Features:

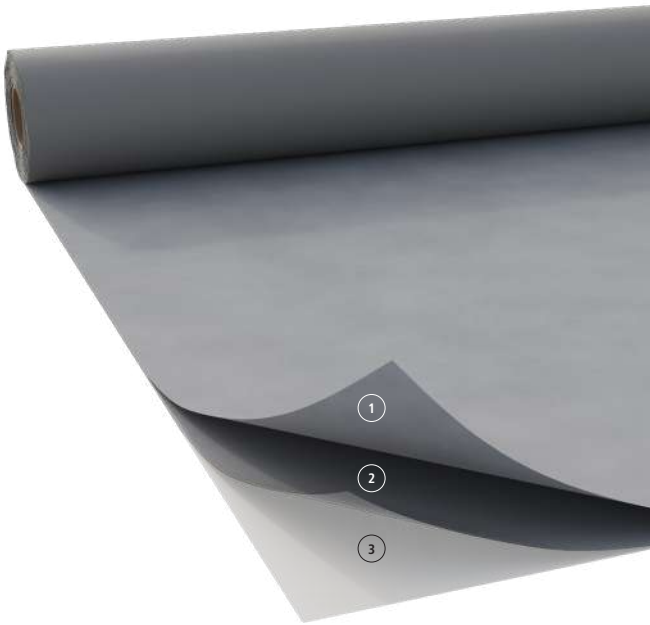
Classification:

CE EN 13956

GEV-EMICODE EC 1 PLUS very low emission

Technical data sheet

Glue		**butyl**
Glue carrier material		**non-wowen fabric in PP**
Protection liner		**YES**
TVOC-test	ISO 16000-6	**30 µg/m³**
Thickness		**1 mm**
Tensile strength MD/CD**	EN 12311-1	**115 / 100 N/50mm**
Elongation at break MD/CD**	EN 12311-1	**100 / 100 %**
Probe Tack	ASTM D 2979	**8.0 N**
180° Peel Adhesion	ASTM D 1000	**20 N/cm**
Solid content	DIN EN ISO 10563	**100 %**
Vertical scrolling	ISO 7390	**0 mm**
Adhesion strength on concrete C2E on Fleece	EN 12004 EN 1348	**0,9 N/mm²**
Emissions	EMICODE®	**EC1 PLUS**
Working temperature		**+0°C / +40°C**
Temperature resistance		**-30°C / +90°C**
Storage place		**dry, protected from UV rays, +5°C / +40°C**
Storage period		**max. 12 months**



Composition:

Non-woven fabric in PP (1)

Butylic glue (2)

Silicone liner (3)

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll Vlies Plus 250	02044250	250x10	2	140
Coll Vlies Plus 500	02044500	500x10	1	70

**MD = longitudinal CD = transversal

Coll HDPE

QUICK OVERVIEW: STRENGTHS

The best mechanical resistance

- Self-adhesive bituminous strip
- Designed to waterproof the connection point of the wooden wall and as an anticorrosive covering
- Can be applied "cold", a simple and quick application
- Excellent mechanical resistance against mechanical stress
- Optimum dielectric strength and high deformability

Composition:

1. HDPE film
2. Bituminous compound
3. Silicone liner

Features:

Classification:

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
Coll HDPE 250	020445031	250x20	2	40
Coll HDPE 500	02044503	500x20	1	40
Coll HDPE 1000	020445032	1000x20	1	25

Technical data sheet

Glue		**bitumen**
Glue carrier material		**HDPE**
Protection liner		**YES**
Thickness		**1,5 mm**
Water vapour permeability μ	EN 1931	**90000**
Tensile strength MD/CD*	EN 12311-1	**215 / 220 N/50mm**
Elongation at break MD/CD*	EN 12311-1	**310 / 240 %**
Tear resistance MD/CD*	EN 12310-1	**135 / 135 N**
Adhesion (to concrete at 23°C)	ASTM D 1000	**2,9 N/mm**
Permeability to radon gas	SP Swedish NT&RI	**5,7 x 10^{-12} m^2/s**
Permeability to methane gas	CSI Method	**<5 cc/m^2 x 24h x atm**
Emissions	EMICODE®	**EC1 PLUS**
	CMR regulation	**A+**
	ISO 16000	**compliant****
Working temperature		**+5°C / +45°C**
Operating temperature		**-40°C / +80°C**
Fire class	EN 13501-1	**E**
Storage place		**dry, protected from UV rays, +5°C / +40°C**
Storage period		**max. 12 months**

**CAM (Criteri Ambientali Minimi Edilizia - IT)
*MD = longitudinal CD = transversal
Riwega Srl is not responsible for negligent and improper use of its products

GAE ST

QUICK OVERVIEW: STRENGTHS

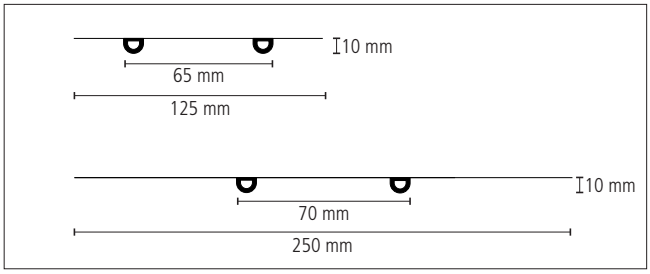
The protection of wooden elements

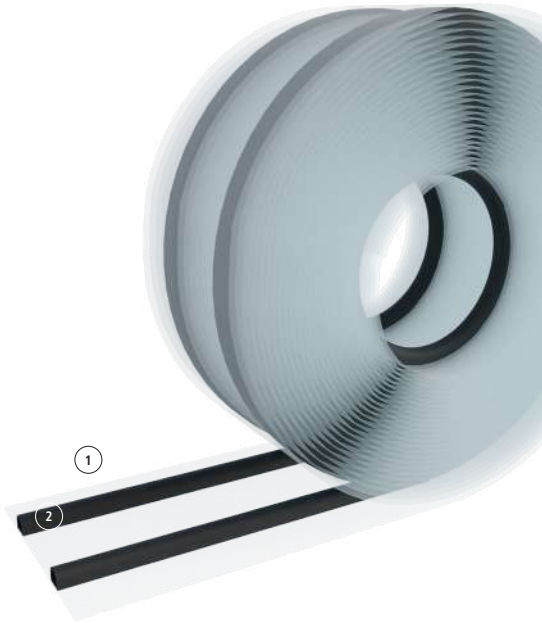
- Airtight sealing
- Waterproofing between wooden elements and other types of structure
- High resistance to high load pressures
- High resistance to UV rays and ageing
- Available in different sizes adaptable to the width of the wooden structure

Features:

Classification:

CE
EN 13984





Composition:

Film in PE (1)

Elastic EPDM pipes (2)

Technical data sheet

Material		**LDPE/EPDM**
Water tightness	EN 1928	**passed**
Water vapour permeability	EN 1931-B	**min. 3,0 x 10^6 s/m**
Impact resistance		**min. 500 mm**
Tensile strength MD/CD*	EN 12311-2 met.B	**min. 20 / 20 N/mm²**
Elongation at break MD/CD*	EN 12311-2 met.B	**min. 550 / 600 %**
Nail tear stregth MD/CD*	EN 12310-1	**min. 120 / 120 N**
Fire class	EN 13501-1	**F**
EPDM profile dimension		**~10 mm**
EPDM density	ISO 2781A	**~0,3 g/cm³**
Compression set (50%) after 22h/23°		**7 %**
Compression set (50%) after 22h/70°		**36 %**
Deflection by compression (25%)		**52 kN/m²**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
GAE ST 125	02045005	125x25	8	6
GAE ST 250	02045006	250x25	6	6

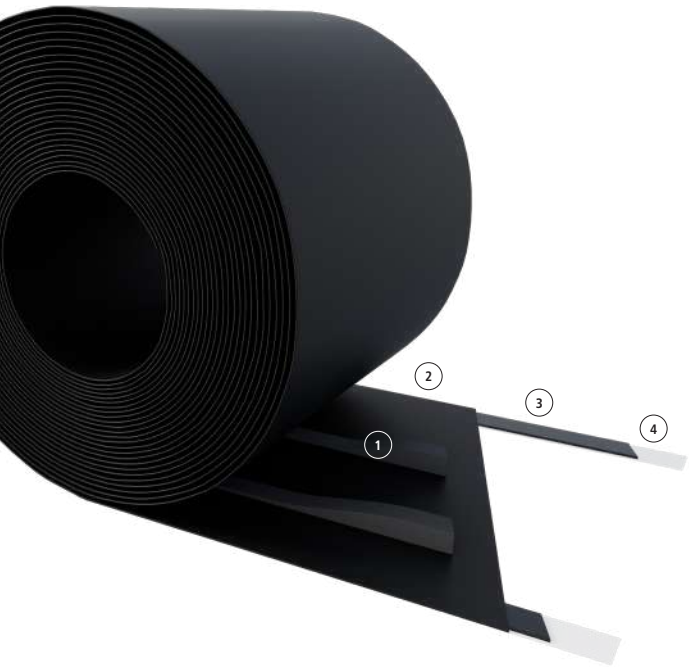
*MD = longitudinal CD = transversal

GAE ST Plus

QUICK OVERVIEW: STRENGTHS

The expansive protection for wooden elements

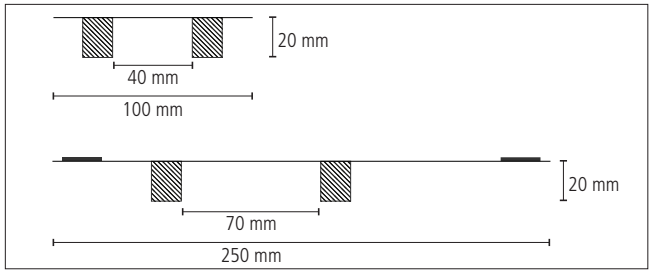
- Sealing gasket
- Waterproofs the connection between wood and structures even with uneven surfaces
- Particularly resistant to UV rays and ageing
- Available in different sizes adaptable to the width of the wooden structure



Composition:

1. Pre-compressed polyurethane foam
2. EPDM strip
3. Butylic glue (GAE ST Plus 250)
4. Silicone liner (GAE ST Plus 250)

Features:



Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
GAE ST Plus 100	020450060	100x25	3	24
GAE ST Plus 250	020450061	250x25	1	24

Technical data sheet

Strip material		**EPDM based rubber**
Gasket material		**polyurethane foam**
Glue (GAE ST Plus 250)		**butylic (2x20 mm)**
Thickness EPDM		**0,8 mm**
Tear resistance	DIN 53504	**≥25 kN/m**
Tensile strength	DIN 53504	**≥6,5 mPa**
Elongation at break	DIN 53504	**≥300 %**
Dimensional tolerance	DIN 7715 T5 P3	**compliant**
Vapour passage resistance μ	DIN EN 1931	**~32000**
Working temperature		**+5°C / +35°C**
Temperature resistance		**-30°C / +100°C**
Fire class	DIN 13501 T1	**E**
Ozone and UV stability	DIN 7864 T1	**compliant**
Storage place		**dry, protected from UV rays, +1°C / +25°C**
Storage period		**max. 12 months**

GAE ST Bitum

QUICK OVERVIEW: STRENGTHS

The protection with high mechanical resistance

- Bitumen and non-wowen strip
- Prevents rising humidity between concrete and wooden structures
- Available in different sizes adaptable to the width of the wooden structure
- High resistance to high load pressures
- Quick and easy cold laying

Features:

Composition:

PE film (1)

Distilled bitumen and elastoplastomeric polymers (APP type) (2)

PE film (3)

Technical data sheet

Material		**PE film and modified bitumen**
Reinforcement		**PET armouring**
Thickness		**4 mm**
Density		**1000 kg/m³**
Visible defects	EN 1850-1	**passed**
Water tightness	EN 1928 met.B	**60 kPa**
Water vapour permeability μ	EN 1931	**20000**
Flexibility at low temperatures	EN 1109	**-10°C**
Hot mould stability	EN 1110	**+120°C**
Dimensional stability	EN 1107-1	**-0,5 %**
Storage place		**dry, protected from UV rays, +5°C / +40°C**
Storage period		**max. 12 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
GAE ST Bitum 140	020450065	140x10	1	140
GAE ST Bitum 200	020450066	200x10	1	100

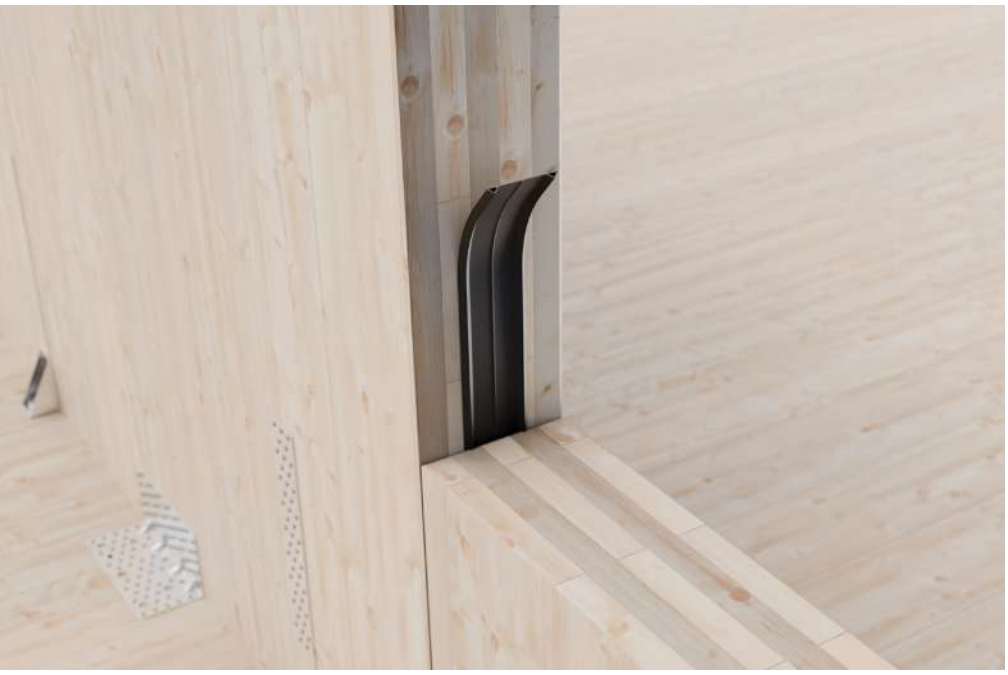
Sealings for wooden structures

The air and wind tightness of timber constructions is very often achieved by using special gaskets, which can be made of EPDM or pre-compressed polyurethane foam.

EPDM gaskets find their place at the joints between different construction elements. The Riwega range includes two types: a compact EPDM gasket used at joints between wooden walls and floors in CLT (X-lam) or frame constructions. Due to its uneven surface, this gasket reduces the passage of acoustic vibrations in all wooden structures. Another product is the EPDM foam gasket, which is used at joints of CLT (X-lam) or frame constructions and primarily has an airtight function.

Pre-compressed polyurethane foam tapes (GAE BG2), on the other hand, are used as a solution for special situations in carpentry to prevent the penetration of water and wind inside joints; other possible applications are the sealing of insulation packages or the sealing between the wooden beam supports in log cabin walls.

GAE LVD

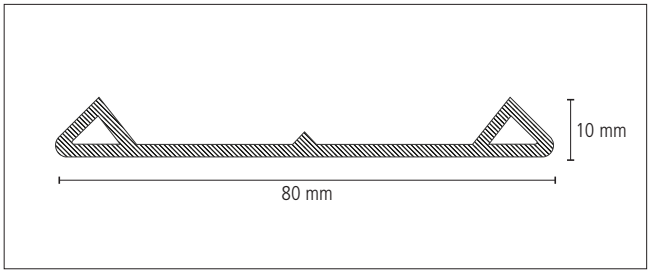


QUICK OVERVIEW: STRENGTHS

The essential for wooden joints

- Sealing gasket
- Waterproofing to air, water and wind of the connections in the wooden houses
- Resistant to dilatation and vibrations due to its high elasticity
- Also ideal for sealing the lower joint of the windows and doors

Features:



Composition:

Expanded elastic EPDM (1)

Technical data sheet

Material		**expanded EPDM**
Side overhangs height		**~10 mm**
Density		**0,5 g/cm³**
Working temperature		**-45°C / +120°C**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
GAE LVD 80	02045007	80x25	12	1

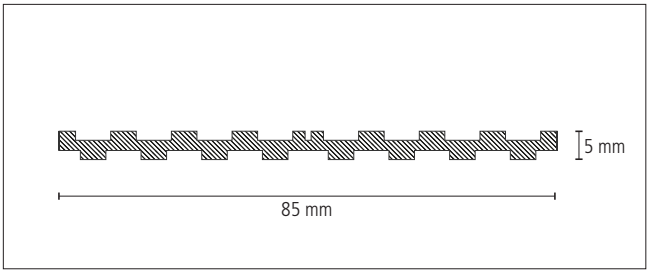
GAE STG Double

QUICK OVERVIEW: STRENGTHS

Stop the spread of noise

- Sealing gasket
- Stops the passage of footstep vibrations for a better noise reduction
- Waterproofing to air, water and wind of the connections in the wooden houses
- Divisible in half for one use versatile in all laying conditions
- Quick and easy application

Features:



Composition:

(1) Compact EPDM

Technical data sheet

Material		**rigid EPDM**
Thickness		**5 mm**
Density		**1,3 g/cm³**
Elongation at break	ISO 37 Tipo 1	**≥250 %**
Breaking load	ISO 37 Tipo 1	**≥5 N/mm²**
Hardness (Shore A)	ASTM D 2240 3s	**60**
100% module		**≥1,5 N/mm²**
Working temperature		**-45°C / +130°C**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

Codes and measures

Version	Code	Measures (mmxm)	Box (pc)	Pallet (box)
GAE STG Double	020450081	85 (42,5x2) x25	12	4

Adhesives and sealants

In various applications there are situations where it is necessary to work with adhesives or sealants in cartridges; Riwega has developed some solutions for this:

- An acrylic adhesive/sealant in a cartridge with thixotropic properties (which allow subsequent processing) for bonding vapour control layers, breathable membranes, or sealing tapes for windows and doors to various types of building materials (wood, brick, plaster, mortar, concrete, etc.).

- A butyl sealant in cartridge that simplifies sealing in difficult-to-handle situations; useful in cases where sealing with tape is not possible. It can be used as an adhesive for bonding vapour control layers, breathable membranes, or sealing tapes for windows and doors to various types of building materials (wood, brick, plaster, mortar, concrete, etc.).

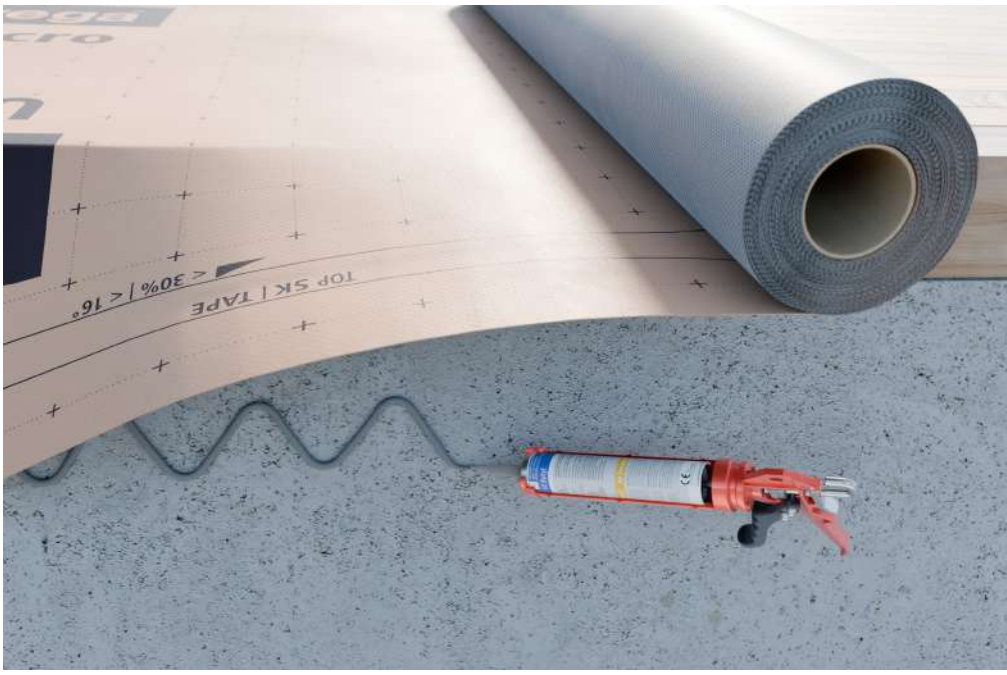
Riwega products are ideal for installing vapour control layers on roofs where conventional installation is difficult. E.g. on brick-concrete roofs where installation with staples or nails is not possible; thus, the vapour control layer can be professionally installed on the substrate.

Sil Butyl

QUICK OVERVIEW: STRENGTHS

The universal toluene-free adhesive

- Butyl rubber-based sealant
- Indicated for bonding and sealing of membranes and vapour screens
- High elasticity, even in case of movements of the structure
- High resistance against atmospheric agents and ageing
- Toluene-free



Features:

Classification:

CE
EN 15651

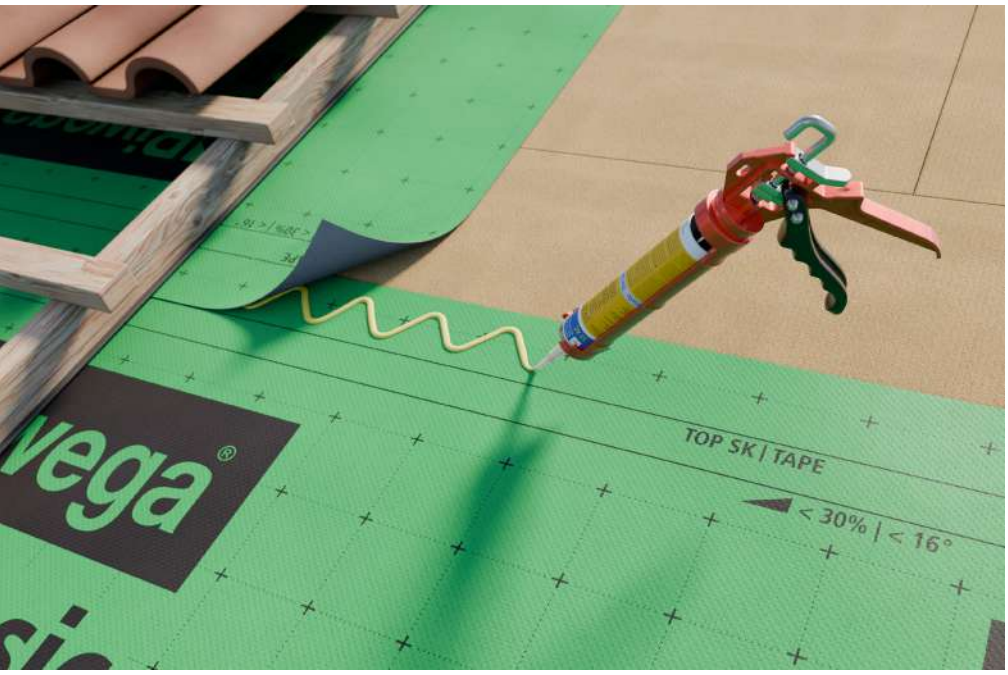
Codes and measures

Version	Code	Content (ml)	Box (pc)	Pallet (box)
Cartridge	02040406	310	20	60
Tube	02040407	600	20	-

Technical data sheet

Material		**butylic glue**
Density	EN ISO 10563	**~1,65 g/cm³**
Output cartridge		**~10 m**
Output tube		**~20 m**
Hardness (Shore A)	DIN EN ISO 868	**~15**
Min. thickness per layer		**6 mm**
Min. width per layer		**10 - 15 mm**
Resistance to atmospheric agents		**stable**
Volumetric variation		**10 %**
Cohesion time	DIN 18545-B	**1 h**
Viscosity	DIN EN 27390	**stable**
Cleaning (fresh applied)		**with petrol / turpentine**
Fire class	EN 13501-1	**E**
	DIN 4102	**B2**
Working temperature		**+5°C / +40°C**
Operating temperature	DIN 52455-4	**-40°C / +90°C**
Storage place		**dry, protected from UV rays, +15°C / +25°C**
Storage period		**max. 12 months**

Sil AC



QUICK OVERVIEW: STRENGTHS

The universal acrylic sealant

- Acrylic acid esters-based copolymer sealant
- Indicated for bonding and sealing of membranes and vapour screens
- Thixotropic, filling and sealing properties
- High adhesion to all surfaces, solvent-free

Features:

Classification:

Technical data sheet

Material		**acrylic acid ester-based copolymer with additives**
Density		**~1,00 g/cm³**
Output		**~30 / 40 g/m**
Formation of skin		**da ~ 30 min. immediate adhesiveness**
Drying time		**1 / 7 d**
Viscosity		**mellow and thixotropic**
Emissions	EMICODE®	**very low**
Working temperature		**-5°C / +40°C recommended over +5°C**
Operating temperature		**-30°C / +80°C**
Storage place		**dry, protected from UV rays, +15°C / +25°C**
Storage period		**max. 12 months**

Codes and measures

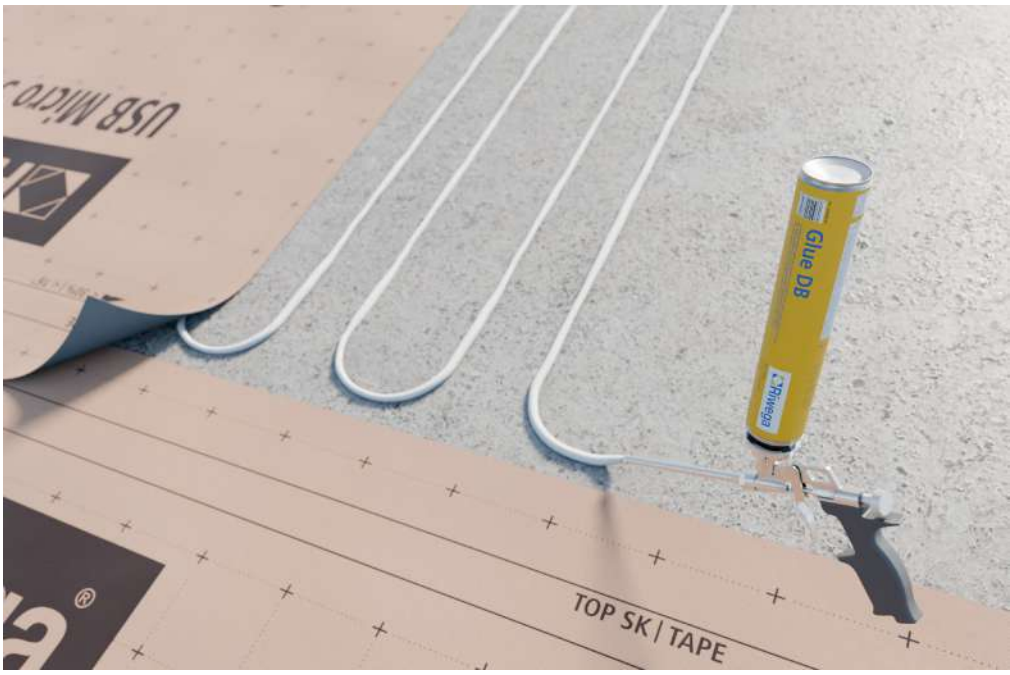
Version	Code	Content (ml)	Box (pc)	Pallet (box)
Cartridge	02040400	310	20	60
Tube	02040401	600	20	-

Glue DB

QUICK OVERVIEW: STRENGTHS

The perfect adhesion on cement surfaces

- Polyurethane monocomponent foam
- Indicated for bonding membranes and vapour screens on all building surfaces
- Fast-drying and high resistance to ageing
- Can also be used to bond synthetic insulation panels
- Easy and fast application



Features:

Codes and measures

Version	Code	Content (ml)	Box (pc)	Pallet (box)
Can	02040510	750	12	56

Technical data sheet

Material		**polyurethane monocomponent foam**
Density	EN ISO 10563	**15 / 25 kg/m³**
Output free foaming (20°C/65% UR)		**47 l (dm³)**
Thermal conductivity (20°C/65% UR)	DIN 56612	**~0,035 W/mK**
Dimensional stability	FEICA TM 1004	**±5 %**
DVA Vapour passage resistance	DIN 53429	**50 / 60 g/m²/24h**
Cuttable time (20°C/65% UR)		**20 - 30 min.**
Formation of skin (20°C/65% UR)		**8 - 12 min.**
Pressure resistance (def. 10%)	DIN 53421	**5 / 7 N/cm²**
Fire class	DIN 4102-1	**B3**
Working can temperature		**+10°C / +30°C**
Working environment temperature		**+3°C / +35°C**
Optimal working temperature		**+15°C / +25°C**
Temperature resistance		**-40°C / +80°C**
Storage place		**dry, protected from UV rays, max. 20°C**
Storage period		**max. 15 months**

AIR Stop line

One of the major problems for the building envelope's air and wind tightness is represented by the many junctions in the structure; in fact, there are many points in the house where walls and roofs are crossed by electric corrugated pipes, hydraulic pipes, vents, chimneys, CMV pipes, etc. In such situations, it's essential, that each potential air passage is perfectly sealed. Otherwise, these sensible points could become a thermal bridge, where crossing air forms condensation inside the building envelope.

To guarantee these steps' sealing, Riwega has developed the Air Stop line which boasts an interesting series of products:

A) **Universal collars**
Produced with pre-engraved EPDM sheets and equipped with acrylic adhesive tape on the perimeter; in various sizes, they are useful for sealing passages of single cables, corrugated pipes, vents and other types of pipes with various diameters.

B) **Single EPDM collars**
Installed on an aluminium or PP support coated with butyl glue; these elements are used, choosing the desired diameter, to seal the single passages, from 4 mm diameter cables, up to 25 mm diameter pipes.

C) **Single EPDM collars for chimney flues**
Available in various diameters, resistant to high temperatures. They are mounted on aluminium support coated with butyl adhesive and are used for individual sealing of stove chimneys.

D) **Multi-pass silicone collars**
Coupled with aluminium support coated with butyl glue, with the function to seal several electrical cables or corrugated pipes (up to 6) that pass through the casing in the same place.

E) **Single certified EPDM collars against radon gas passage**
Ideal for sealing cables and pipes, specially designed to resist the spread of radon gas through the building envelope and structures.

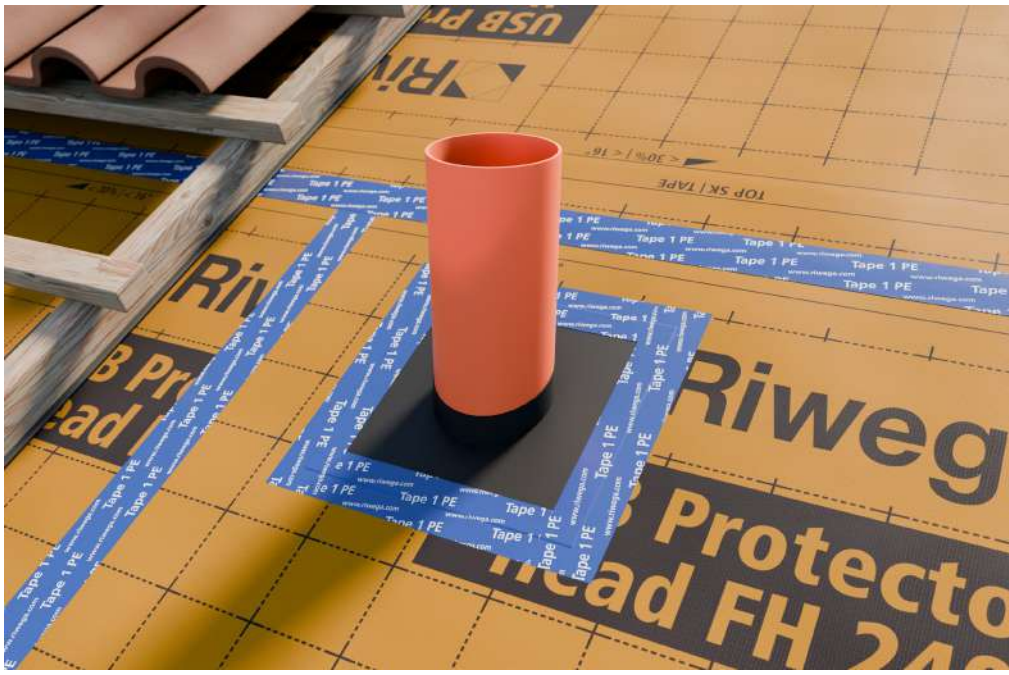
F) **Air stoppers**
To seal the passage of air inside the corrugated pipes; they allow the passage of electric cables through the end membranes of the caps.

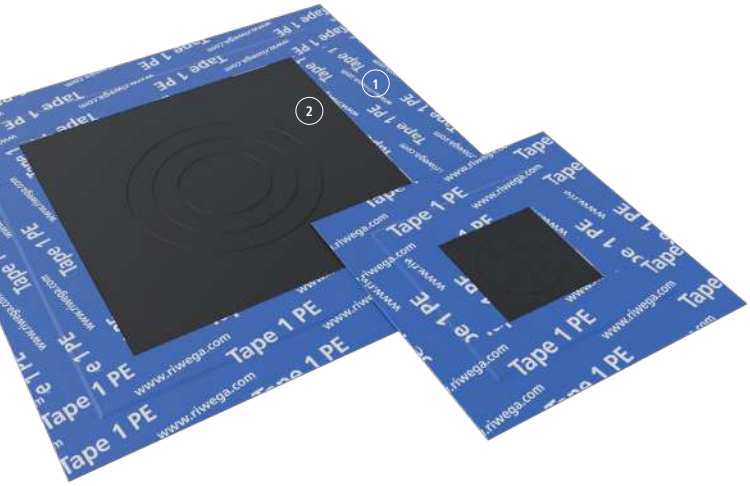
AIR Stop Universal

QUICK OVERVIEW: STRENGTHS

The universal with a pre-cut diameter

- Self-adhesive sealing collar
- Multiple pre-cut holes for adapt to cables and pipes of every diameter
- Fast and secure sealing thanks to applied adhesive tape
- Ideal for sealing against water, air, wind all breathable membranes and vapour barriers
- For roof and wall





Composition:

1. Adhesive Tape 1 PE with silicone liner
2. EPDM sheet with pre-engravings

Features:

Codes and measures

Version	Code	Measures (mm)	Internal diameters (mm)
60/135	02202500	345x345	60 (1 hole) for ø80-125 pipes 100 (1 hole) for ø125-160 pipes 135 (1 hole) for ø160-200 pipes
2/55	02202510	195x195	3 (4 holes) for ø7-10 cables 7 (2 holes) for ø10-22 cables 55 (1 hole) for ø80 pipes

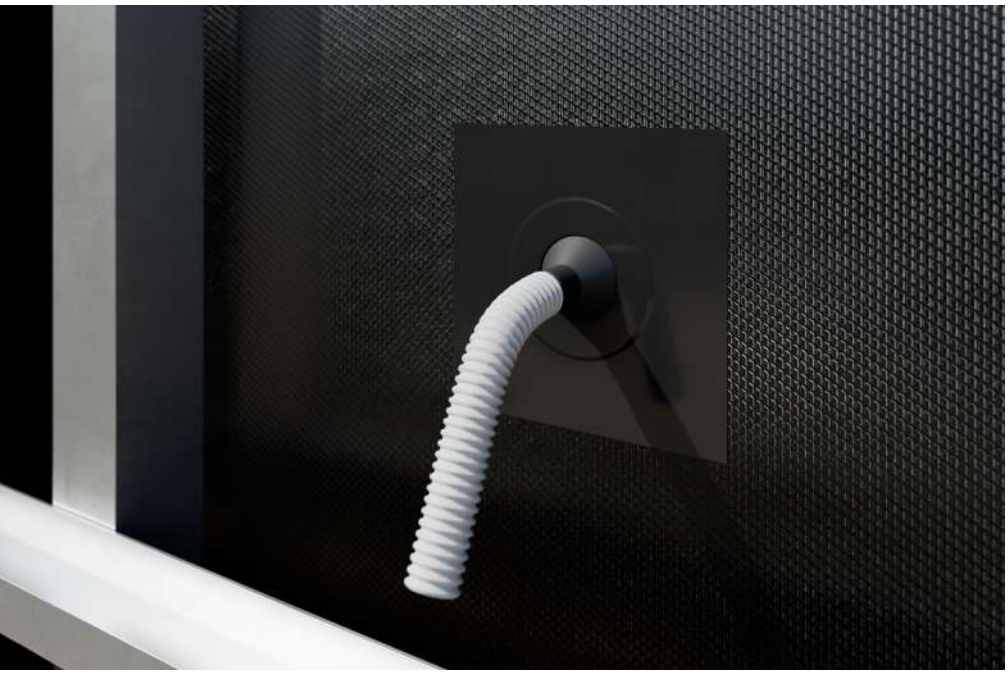
Technical data sheet - Adhesiv

Glue		**disp. based polyacrylate**
Glue carrier material		**PE surface**
Reinforcing mesh		**YES**
Protection liner		**YES**
Solvents and emollients		**NO**
Thickness	DIN EN 14410	**0,27 - 0,29 mm**
Tear resistance with elasticity	DIN EN 14410	**≥25 N/25 mm; 300 %**
Resistance to condensation		**very high**
Resistance to aging		**very high**
Initial adhesion (Tack)		**very high**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**24 months**

Technical data sheet - EPDM

Hardness (Shore A)		**67°**
Tensile strength	EN 12311-2	**9,4 MPa**
Tear resistance	EN 12310-2	**55 kN/m**
Elongation at break		**430 %**
S_d value	EN 1931	**~60 m**
Temperature resistance		**-45°C / +130°C**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

AIR Stop UV



QUICK OVERVIEW: STRENGTHS

Invisible, waterproof and UV-stable on ventilated façades

- Self-adhesive sealing collar
- UV and ageing stabilised
- Ideal for sealing rear-ventilated façades with open joints
- Strongly adhesive acrylic adhesive for exterior and interior use
- Various dimensions for the most common diameters

new product

Features:

Technical data sheet

Material		**UV stabilized PP/ EPDM**
Glue		**disp. based polyacrylate**
Protection liner		**YES**
Application		**tubes: electrical, plumbing, of heating**
Working temperature		**+5°C / +30°C**
Temperature resistance		**-30°C / +100°C**
UV stability		**high***
Storage place		**dry, protected from UV rays, +18°C / +25°C**
Storage period		**max. 24 months**

Composition:

Adhesive Tape UV with silicone liner (1)

EPDM (2)

Codes and measures

Version	Code	Internal diameter (mm)	Base (mm)	Box (pcs)
AIR Stop UV GD21	02203021	15-22	150x150	10
AIR Stop UV GD22	02203022	25-32	150x150	10

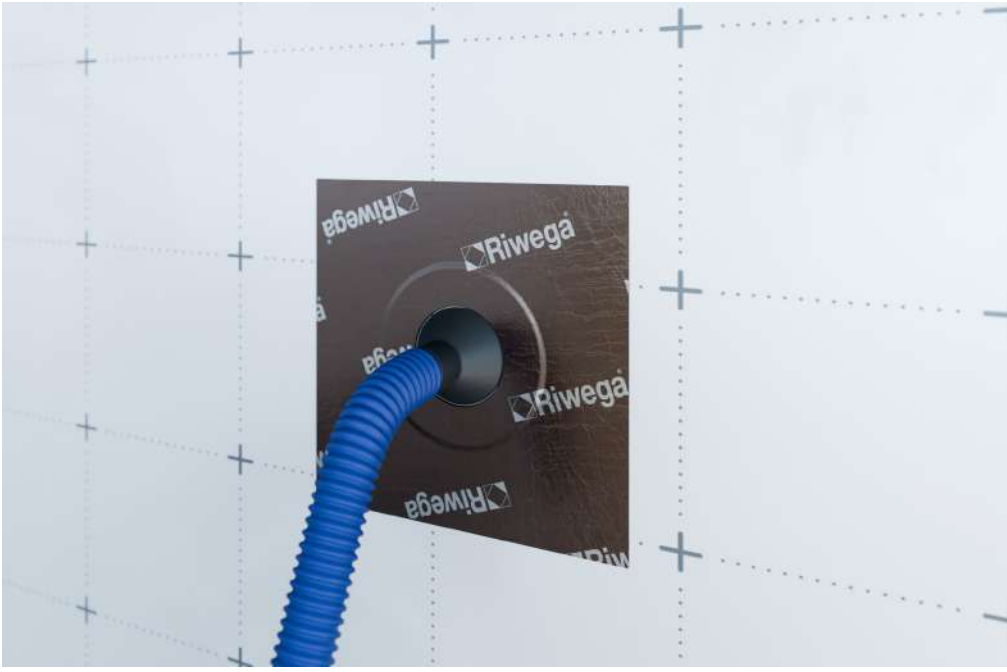
*with reference to the Central European climate

AIR Stop EPDM

QUICK OVERVIEW: STRENGTHS

The ally for the sealing of pipes and cables

- Self-adhesive sealing collar
- Multiple measures to adapt to cables and pipes of each diameter
- Particularly resistant to UV rays and ageing
- Ideal for sealing against water, air, wind all breathable membranes and vapour barriers
- Aluminium surface, on request with plasterable TNT



AIR Stop D1 Ø 4-8 mm

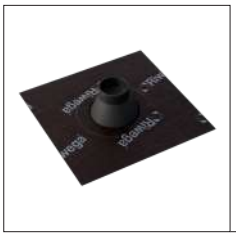
Code	02201504
Internal diameter of the collar	4-8 mm
Base dimension	150x150 mm
Type of application	tubes: electrical, telephone, aerial and satellite dish
Box	10 pcs

AIR Stop D1 Ø 8-12 mm

Code	02201508
Internal diameter of the collar	8-12 mm
Base dimension	150x150 mm
Type of application	tubes: electrical, telephone, aerial and satellite dish
Box	10 pcs

AIR Stop GD21

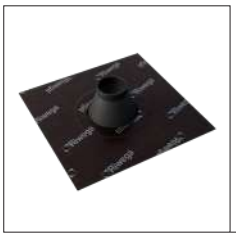
Code	02201515
Internal diameter of the collar	15-22 mm
Base dimension	150x150 mm
Type of application	tubes: electrical, plumbing, of heating
Box	10 pcs



AIR Stop GD22

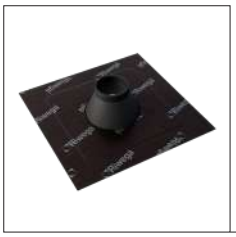
Code	02201525
Internal diameter of the collar	25-32 mm
Base dimension	150x150 mm
Type of application	tubes: plumbing, of heating
Box	10 pcs

AIR Stop EPDM



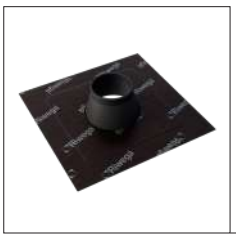
AIR Stop GD23

Code	02202242
Internal diameter of the collar	40-55 mm
Base dimension	230x230 mm
Type of application	tubes: plumbing, of solar panels, of exhaust
Box	2 pcs



AIR Stop RGD50

Code	02202250
Internal diameter of the collar	50-72 mm
Base dimension	230x230 mm
Type of application	tubes: of solar panels, of exhaust
Box	2 pcs

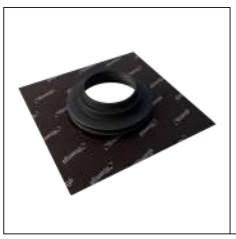


AIR Stop RGD75

Code	02202275
Internal diameter of the collar	72-90 mm
Base dimension	230x230 mm
Type of application	tubes: of vents, hood, gas
Box	2 pcs

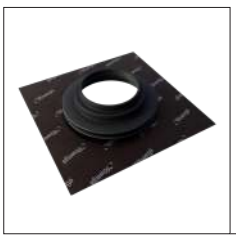
AIR Stop RGD100

Code	02202299
Internal diameter of the collar	100-110 mm
Base dimension	320x320 mm
Type of application	tubes: of vents, hood, gas
Box	2 pcs



AIR Stop FRGD100

Code	02203510
Internal diameter of the collar	100-125 mm
Base dimension	350x350 mm
Type of application	tubes: of vents, hood, gas
Box	2 pcs



AIR Stop FRGD150

Code	02203515
Internal diameter of the collar	150-165 mm
Base dimension	350x350 mm
Type of application	tubes: of vents, hood, gas
Box	2 pcs

AIR Stop RGD200

Code	02203516
Internal diameter of the collar	200x220 mm*
Base dimension	420x420 mm
Type of application	tubes: of vents, hood, gas
Box	2 pcs

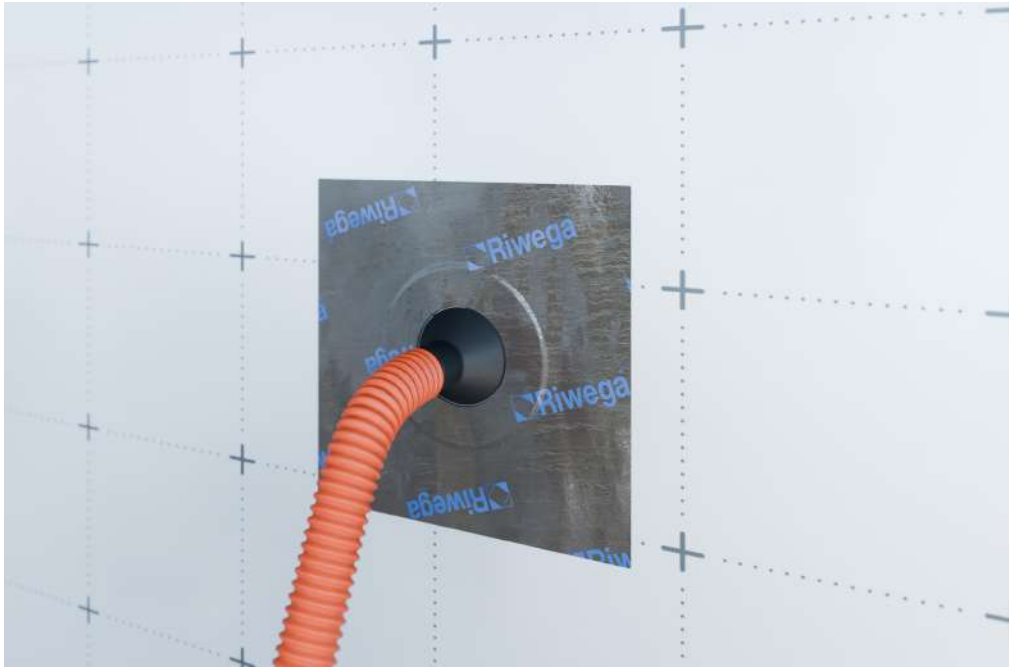
*Larger sizes up to Ø 300 mm can be supplied on request

AIR Stop Radon

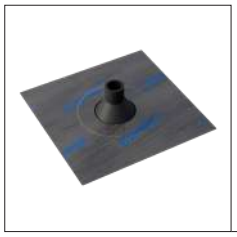
QUICK OVERVIEW: STRENGTHS

Certified radon gas sealing

- Self-adhesive sealing collar
- Multiple sizes to fit cables and pipes of any diameter
- Certified solution, ideal for radon gas barriers sealing
- Ideal for creating durable, hermetic seals on various surfaces

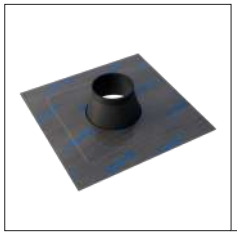


new product



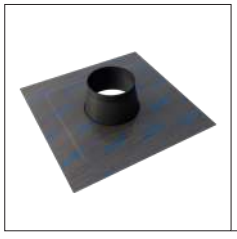
AIR Stop Radon GD21

Code	02203541
Internal diameter of the collar	15-22 mm
Base dimension	150x150 mm
Radon gas diffusion (D)	3,2 x 10^{-12} m^2s^{-1}
Diffusion length (L_D)	1,18 mm
Test parameter ($R=d/L_D$)	0,85
Type of application	tubes: electrical, plumbing, of heating
Box	10 pcs



AIR Stop Radon RGD75

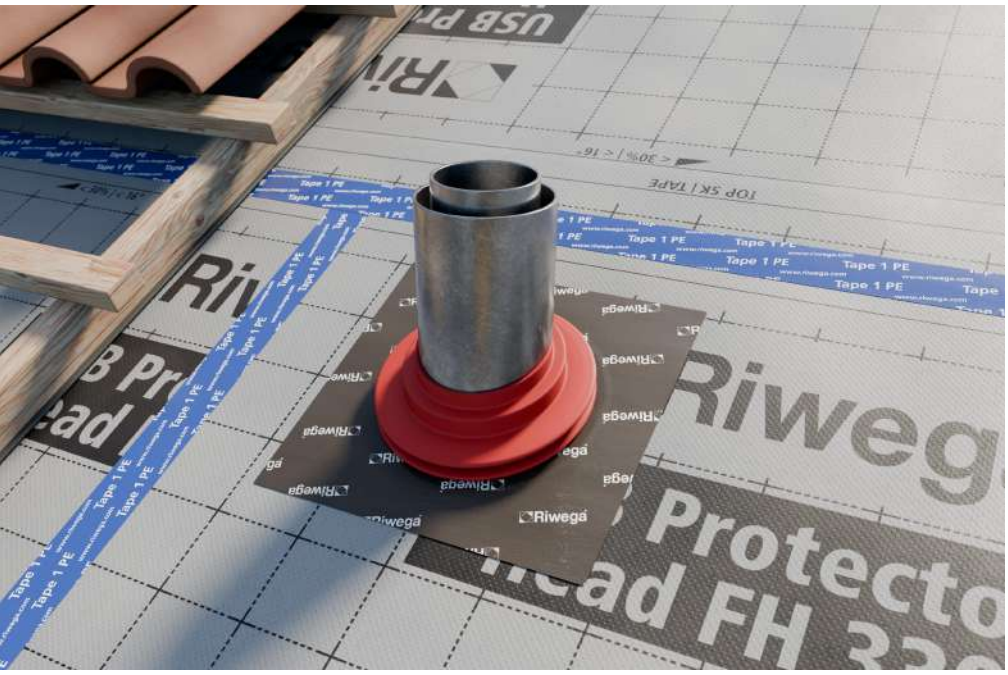
Code	02203542
Internal diameter of the collar	72-90 mm
Base dimension	230x230 mm
Radon gas diffusion (D)	3,2 x 10^{-12} m^2s^{-1}
Diffusion length (L_D)	1,18 mm
Test parameter ($R=d/L_D$)	0,85
Type of application	tubes: of vents, hood, gas
Box	4 pcs



AIR Stop Radon RGD100

Code	02203543
Internal diameter of the collar	100-110 mm
Base dimension	320x320 mm
Radon gas diffusion (D)	3,2 x 10^{-12} m^2s^{-1}
Diffusion length (L_D)	1,18 mm
Test parameter ($R=d/L_D$)	0,85
Type of application	tubes: of vents, hood, gas
Box	4 pcs

AIR Stop HOT



QUICK OVERVIEW: STRENGTHS

The first one which works up to 250°C

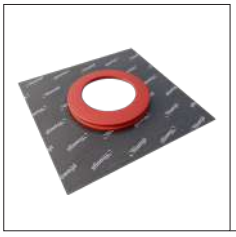
- Self-adhesive sealing collar
- Designed for waterproofing chimneys
- Multiple measures to adapt to pipes of all diameters
- Particularly resistant to UV rays and ageing
- Ideal for sealing against water, air, wind all breathable membranes and vapour barriers

AIR Stop HOT FRGD100

Code	02203530
Internal diameter of the collar	100-125 mm
Base dimension	350x350 mm
Type of application	stove chimneys
Box	2 pcs

AIR Stop HOT FRGD150

Code	02203531
Internal diameter of the collar	150-165 mm
Base dimension	350x350 mm
Type of application	stove chimneys
Box	2 pcs



AIR Stop HOT FRGD180

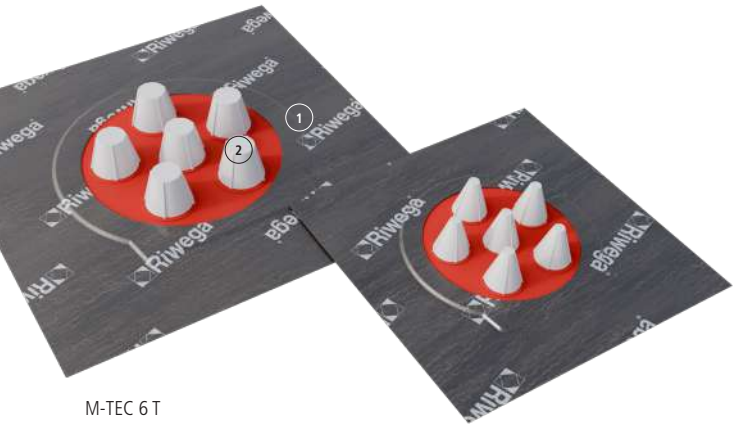
Code	02203532
Internal diameter of the collar	180-200 mm
Base dimension	400x400 mm
Type of application	stove chimneys
Box	2 pcs

AIR Stop M-TEC 6

QUICK OVERVIEW: STRENGTHS

The sealing for the electric installations

- Self-adhesive sealing collar
- Available in two variants, one for cables and one for corrugated pipes
- Designed for sealing up to six holes of different diameters
- Particularly resistant to UV rays and ageing
- Adheres perfectly to breathable membranes, vapour barriers and any laying surface



M-TEC 6 T

M-TEC 6 C

Features:

Composition:

(1) Aluminium-butyl support with silicone liner

(2) Rubber

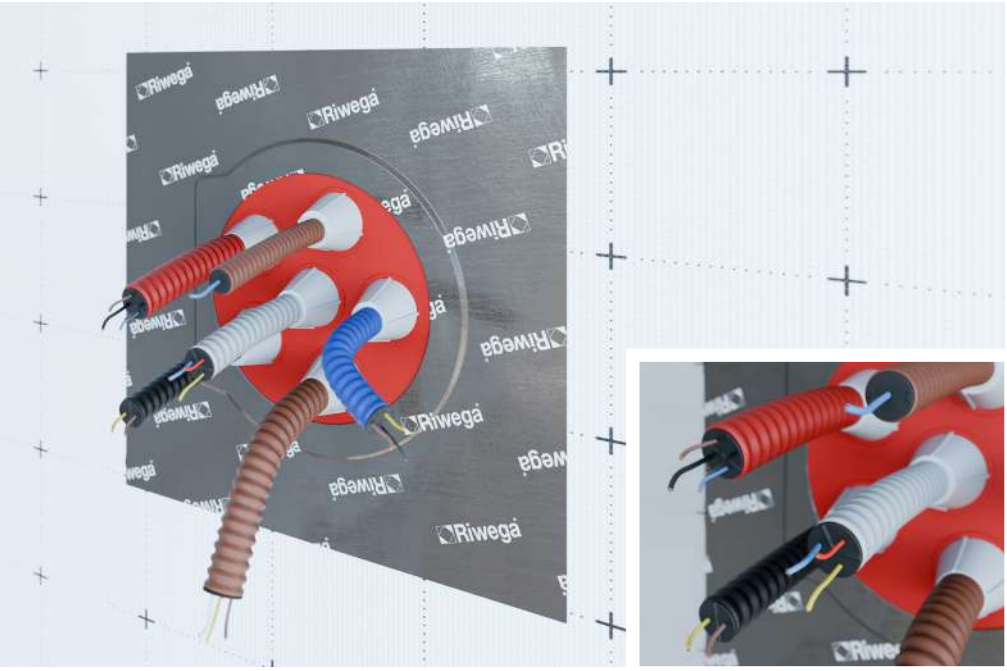
Codes and measures

Version	Code	Measures (mm)	Diameters (mm)	Box (pc)
M-TEC C	02202310	230x230	4-11	4
M-TEC T	02202320	320x320	16-25	4

Technical data sheet

Material		**rubber/alu/butyl**
Glue		**butyl**
Protection liner		**YES**
Number of inserts		**6**
Application M-TEC C		**electrical tubes/satellite**
Application M-TEC T		**corrugated tubes**
Working temperature		**from +4°C**
Temperature resistance		**-20°C / +100°C**
UV stability		**stable**
Storage place		**dry, protected from UV rays**
Storage period		**max. 24 months**

AIR Stopper

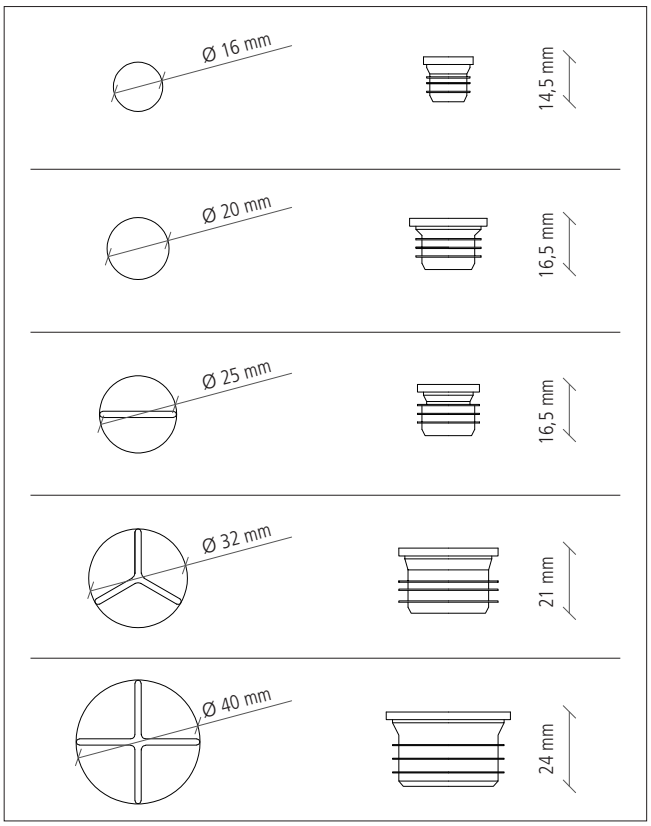


QUICK OVERVIEW: STRENGTHS

The end of corrugated tubes

- Sealing cap
- Equipped with three flaps that ensure impermeability to air and smoke passage
- Multiple measures to adapt to corrugated pipes of all diameters
- The elastic membrane is divided into several sections to separate the electrical circuits
- Particularly resistant to UV rays and ageing

Features:



Composition:

Thermoplastic elastomer (TPE) (1)

Codes and measures

Version	Code	Tube type	Membranes	Box (pc)
AIR Stopper 16	02203616	5/8"-Pg 9-M16	1	20
AIR Stopper 20	02203620	3/4"-Pg 11-M20	1	20
AIR Stopper 25	02203625	Pg 16-M25	2	20
AIR Stopper 32	02203632	Pg 21-M32	3	20
AIR Stopper 40	02203640	Pg 36-M40	4	20

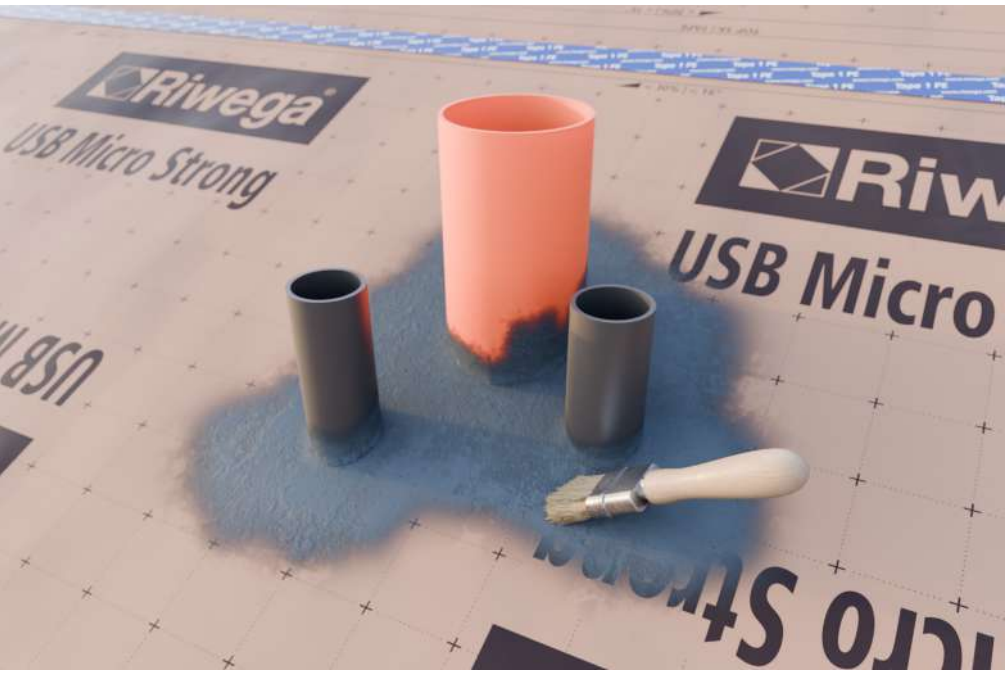
Accessories

Riwega accessories

These include liquid and fibrous polymers that can be applied by brush or roller as soon as other waterproofing products cannot be used for purely practical reasons. Or a range of primers and solvents that can be applied by brush, roller or spray. These increase the adhesion of adhesive tapes on difficult substrates such as damp, friable or dusty surfaces. Or, for example, waterproofing agents or solvents for the installation of special membranes.

The range is completed by the installation equipment listed in section 3, such as applicators for foam or products in cartridges or bags, the complete range of accessories for the USB Weld AS system and the range of pressure rollers, which are indispensable for the installation of adhesive tapes: Because applying the right pressure to the newly laid adhesive tapes is essential to ensure complete and immediate adhesion of the adhesive to the often porous or irregular surface.

Tape Liquid



QUICK OVERVIEW: STRENGTHS

Universal sealant in a liquid version

- One-component liquid sealant; ready to use
- Solvent and plasticizer-free, adaptable to all types of surfaces
- Ideal to seal critical points in the construction
- Reinforced with fibres, no additional non-woven fabric is required

Features:

Technical data sheet

Material		**polyurethane prepolymer**
Consistency		**fibre-reinforced thixotropic liquid**
Output (depending from surface)		**~3 kg/m²**
Density		**~1,27 g/cm³**
Rain resistance		**immediately after laying**
Vapour passage resistance μ		**32000**
Formation of skin (~ 20°C/60% UR)		**~1 h**
Working temperature		**>0°C (<0°C without snow/ice)**
Storage place		**dry, in the original can**
Storage period		**max. 6 months**

Codes and measures

Version	Code	Content (kg)	Box (pc)	Pallet (box)
Tape Liquid	02040700	3,6	1	50

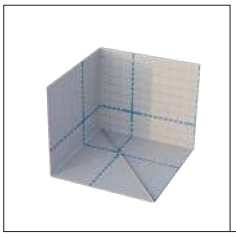
ATTENTION: before laying, verify the compatibility of the substrate with the specific table, which can be downloaded from www.riwega.com
Riwega Srl is not responsible for negligent and improper use of its products

Connecting elements for USB Weld AS

QUICK OVERVIEW: STRENGTHS

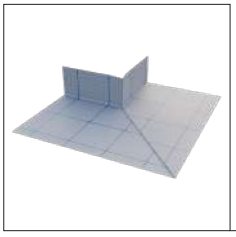
Essential for completing the system

- Corners and sealing collars
- Hot welding by temperatures from 200°C to 300°C or cold welding with THF Welding Liquid
- Completing elements of the USB Weld AS weldable membrane
- Assurance of perfect corner and through-element sealing



Seal INT (hot or cold weldable internal corner)

Code	020103531
Material	TPU
Measurements (Width x Length x H)	150 x 150 x 220 mm
Resistance to water passage	W1
Fire reaction class	E
Cold weldability	with solvent THF Welding Liquid
Hot weldability	with hot air 200°C / 300°C



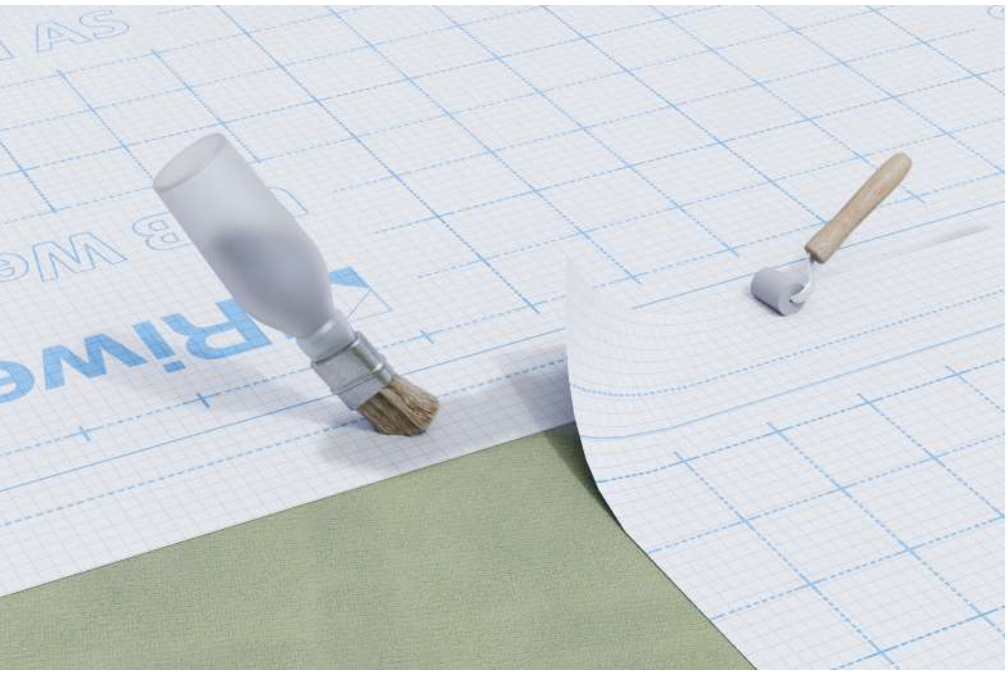
Seal EXT (hot or cold weldable external corner)

Code	020103532
Material	TPU
Measurements (Width x Length x H)	350 x 350 x 140 mm
Resistance to water passage	W1
Fire reaction class	E
Cold weldability	with solvent THF Welding Liquid
Hot weldability	with hot air 200°C / 300°C

Seal DD (hot or cold weldable sealing collar)

Code	020103530
Material	TPU
Internal diameter	min. 90 mm - max. 125 mm
Base external diameter	250 mm
Fire reaction class	E
Cold weldability	with solvent THF Welding Liquid
Hot weldability	with hot air 200°C / 300°C

Accessories for USB Weld AS



QUICK OVERVIEW: STRENGTHS

For a fast and professional installation

- Solvents and sealing accessories
- Solvent for cold welding of USB Weld AS membrane and its connections
- Dispenser with brush to apply the right amount of solvent
- Ergonomic pressure roller resistant to high temperatures

THF Welding Liquid

Code	02010352
Material	tetrahydrofuran (THF)
Content	1 l
Output	~10 ml/m (1 can ~100 m)
Applicatore	bottle with brush (PLA13601)
Working temperature	recommended +18°C / +20°C (workable >10°C)
Storage	dry, in the original can, max. 12 months

Bottle with brush

Code	PLA13601
Compatibility	welding solvents
Material	soft plastic

Silicone roller

Code	PLA81202
Width	4 cm
Use	welding of synthetic membranes
Type of surface	flat and sloping roofs (rigid insulation, smooth wooden panels, osb panels, concrete surfaces, etc.)

Primer and solvents

Primer Spray

Code	02040603
Material	synthetic rubber
Content	500 ml
Output (depending from surface)	~30 - 70 m (con L=60 mm)
Working temperature	-10°C / +30°C
Temperature resistance	-20°C / +80°C
Storage	dry, in the original can, max. 12 months

Primer Liquid

Code	02040600
Material	synthetic rubber and organic solvent
Content	500 ml
Output (depending from surface)	~150 - 250 ml/m^2 (~3 m^2)
Viscosity	~150 mPa.s
Working temperature	+5°C / +30°C
Storage	dry, in the original can, max. 12 months

Primer Bitum

Code	02040601
Material	bitumen in water emulsion and additives
Content	5 l
Output (depending from surface)	~100 / 250 g/m^2
Viscosity	18 - 26 seconds
Density a 20°C	0,99 ± 1,05 kg/l
Drying time	20 - 40 minutes (23°C / 50%RH)
Working temperature	+5°C / +35°C
Storage	dry, in the original can, max. 12 months

Fire Zero Liquid (USB Fire Zero Accessories - page 56)

Code	02010342
Material	graphite water-based paint
Content	5 kg
Output	~5,6 kg/roll USB Fire Zero (~1,2 - 1,4 kg/m^2)
Mass density	1,22 ± 0,02 kg/l
Working temperature	+10°C / +35°C
Storage	dry, in the original can, max. 12 months

Installation equipment

Nastrator

Code	05RUL004
Compatibility	adhesive tape internal ø 75 mm
Material	plastic

Fast Gun

Code	05PIS005
Compatibility	standard cartridge ø 50 mm - 310 ml
Weight	800 g
Push force	450 kg
Peak torque	15 Nm
Maximum rotation speed	480 tr/min
Piston speed	1 mm/tr

Gun for Sil AC / Sil Butyl

Code	05PIS001
Compatibility	tubes of 600 ml
Material	metal / plastic

Gun for Elastic Foam / Glue DB

Code	05PIS002
Compatibility	bottles of 750 ml
Material	metal / plastic

Detergent for Elastic Foam

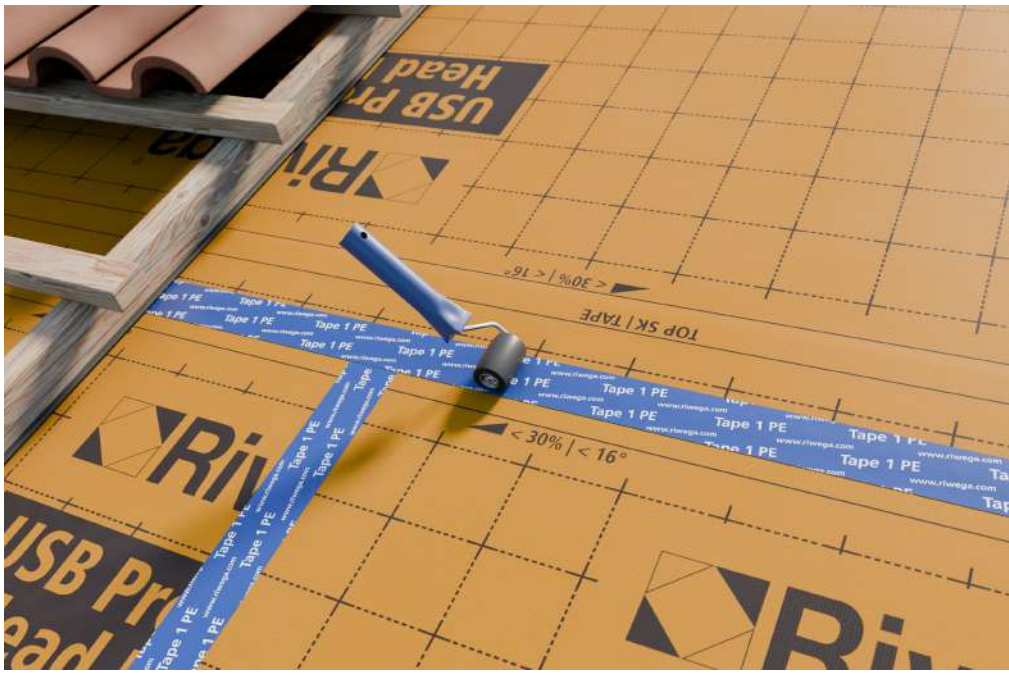
Code	05PIS003
Appearance	liquid (ref. base aerosol)
Colour	colourless
Relative density at 20°C	0,65 - 0,70 g/ml
Inflammation point	<0°C
Pressure at 20°C	4/6 bar
Storage	dry, in the original can, max. 24 months

Rollers and pressure squeegees

QUICK OVERVIEW: STRENGTHS

The indispensable for the correct installation of adhesive tapes

- Compression roll
- Necessary to ensure perfect adhesion of the tape to the laying surface
- Equipped with ergonomic handle
- Available in various types that can be used depending on the support



Rigid plastic roller

Code	05RUL001
Width	5 cm
Use	application of tapes
Type of surface	smooth/rigid surfaces (rigid ins. panels, planking or wooden matchboard, smooth wooden panels, etc.)

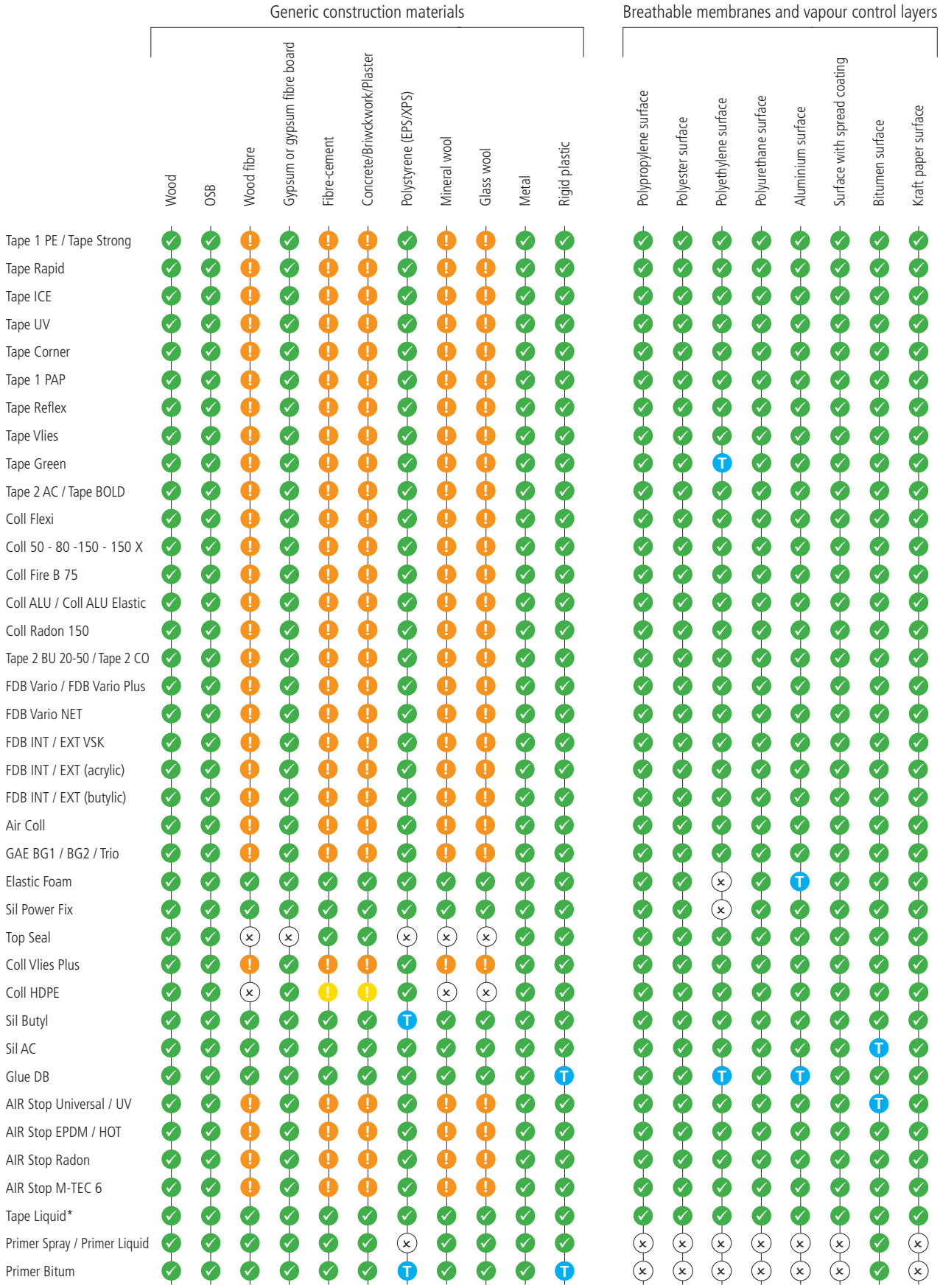
Soft rubber roller

Code	05RUL002
Width	5 cm
Use	application of tapes
Type of surface	rough/irregular/soft surfaces (soft insulation panels, OSB panels, rough concrete surfaces etc.)

APR - Rakel

Code	05RUL005
Measures	7x10 cm
Use	application of tapes
Type of surface	smooth/rigid/slight curvatures

Support compatibility sheet



- Compatible product
- Compatible product only if combined with Primer Spray / Primer Liquid
- Compatible product only if combined with Primer Bitum
- Prouct absolutely NOT compatible
- Compatbility to be verified during application

*See "Support compatibility sheet" on www.riwega.com

Our Production

Solvent welding - laminating - glueing - cutting - printing - rewinding - confectioning.

Since the mid-90s, most of our employees and sales figures have been involved in the production and development of air, wind and waterproofing systems.

Solvent welding

Based on the knowledge gathered and evaluated during this time, the decision was made to build a production plant specially adapted to the requirements of the nonwovens and films used.
This system is now the heart of our production and is how most of our products are manufactured.
The technology of „solvent welding," which was revolutionary during the construction of the plant and is still revolutionary today, is a great indicator of the durability of our products. The „solvent welding" process joins the individual layers of the sarking and vapour control layers without any prior damage caused by temperature and pressure. By coating the functional membrane with a special PUR adhesive, the individual layers can move almost totally free of stress even with strong temperature changes, thus avoiding the tearing of the functional membrane that is so common with conventional products.

Laminating

A flatbed laminating machine is available for the application of adhesives, which is used to apply adhesives to laminates in roll form or powder form.

Printing

Most of the manufactured products are printed on a flexographic printing machine according to customer requirements. The selection and coordination of the right printing blocks are decisive for perfect printing quality. Printing is, of course, done with water-based inks.

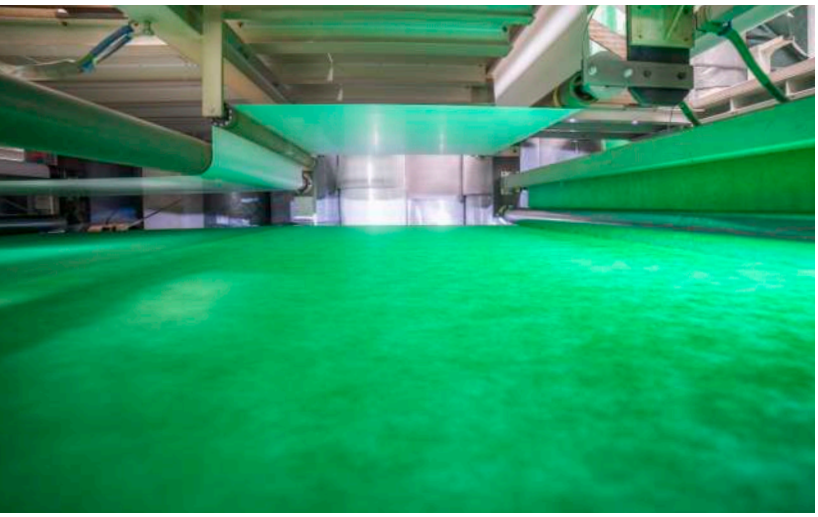
Cutting, rewinding and confectioning

The rolls are finished on special roll winding machines, where the adhesive strips are also applied inline and the customer-specific roll insert is fed. The roll is then wrapped with a protective film. Further equipment for cutting and converting, specially built according to our requirements, is available. Here, cover liners can be slit, or film tapes can be produced with finger lift.

Quality assurance

All production processes are monitored and checked by the in-house quality assurance department. The close-meshed monitoring system guarantees maximum product quality and safety for the customer. Our laboratory is equipped with all the testing equipment necessary to produce CE-marked building products. Here, the goods are subjected to incoming and outgoing inspections, as well as complete production monitoring under the building product directive. With an annual audit, our production is checked by a certified institute as part of our voluntary production monitoring.


USB Tape 1 PE
www.riwega.com



GENERAL TERMS AND CONDITIONS OF SALE

1. Preamble

1.1. These General Terms and Conditions of Sale (hereinafter referred to as the "GTC") shall apply to all Sales made by Riwega Srl (hereinafter "Riwega"), with registered office at Via Isola di Sopra 28, I-39044 Egna (BZ), VAT/Tax ID No. 01694780212, to the Customer, unless otherwise expressly agreed by the Parties.

2. Definitions

2.1. For the purposes of these GTC, the term "Seller" shall refer to the company Riwega.

2.2. For the purposes of these GTC, the term "Customer" shall mean the company or professional purchasing the Products sold by Riwega.

2.3. For the purposes of these GTC, the term "Sale" shall refer to any purchase agreement concluded between Riwega and the Customer concerning the Products.

2.4. For the purposes of these GTC, the term "Products" shall mean the Products listed and offered in Riwega's catalogue at the time of the Sale.

2.5. For the purposes of these GTC, the term "Parties" shall refer collectively to both the Seller and the Customer.

3. Product Orders - Conclusion of Sale

3.1. Product orders must be submitted to the Seller in writing, in accordance with the procedures and deadlines established by Riwega.

3.2. Orders submitted are binding on the Customer, subject to timely acceptance by Riwega in accordance with the applicable or individually agreed terms and conditions.

3.3. A Sale shall be deemed concluded only upon acceptance of the order by Riwega, unless otherwise expressly agreed between the Parties.

3.4. Unless expressly agreed otherwise, the Products shall be sold exclusively in the packaging units specified in the catalogue. Orders for loose items will not be accepted.

4. Product Characteristics - Modifications to the Products

4.1. All data and information regarding the characteristics and technical specifications of the Products contained in brochures, price lists, catalogs, or similar documents issued by Riwega and valid at the time of the Sale shall be fully incorporated into these GTC. Likewise, any data and information communicated by Riwega to the Customer in any other form shall be deemed incorporated. By placing an order, the Customer expressly acknowledges having received, reviewed, and accepted all such information.

4.2. The Seller reserves the right to make any changes to the Products that are necessary or appropriate, provided that the essential characteristics of the Products are not altered. Such changes and/or updated technical data will be regularly published in the product data sheets on Riwega's website or communicated by other means, and shall take precedence over the data provided in the catalogues.

5. Prices

5.1. The Products are sold at the prices listed in Riwega's price list valid at the time of Sale.

5.2. Unless otherwise agreed, the prices listed in the applicable price list refer to Products packaged according to industry standards for the chosen mode of transport, delivered ex works, with any additional costs or duties to be borne by the Customer.

6. Delivery Terms - Transport Costs

6.1. Delivery times communicated to the Customer are indicative, non-binding, and subject to the availability of supplies in Italy and abroad, as well as to force majeure events (e.g., strikes, political events, uprisings, wars, attacks, natural disasters, interruptions of supply lines or services, transport shortages, national and/or international economic crises). Delays resulting from such circumstances shall not entitle the Customer to any compensation or penalties. The same shall apply to delays caused by production or planning issues not attributable to Riwega, as well as delays caused by the carrier.

6.2. If the Seller is unable to deliver the Products by the expected date, it shall promptly inform the Customer and, where possible, provide a revised delivery date.

6.3. Riwega reserves the right to fulfill orders by multiple partial shipments and in partial quantities. If the Customer refuses acceptance of a delivery, the Seller shall charge the Customer for storage costs incurred as well as any additional expenses and fees. In the event of allocation restrictions or import bans on the sold Products, Riwega is entitled to suspend deliveries and/or terminate the contract.

6.4. Unless otherwise agreed, transport costs shall be borne by the Customer and are based on Riwega's transport price list valid at the time of Sale.

6.5. Unless otherwise agreed, delivery shall be ex works, even if shipment or part thereof is organized by Riwega (Carriage Paid).

6.6. In any case, regardless of the agreed delivery terms, risk shall pass to the Customer no later than upon delivery of the Products to the first carrier.

7. Payment Terms

7.1. Payment of the product price shall be made in Euro within the deadlines stated on the invoice, subject to the following provisions, unless otherwise specified.

7.2. If deferred payment has been agreed upon by the Parties, it shall be made, unless otherwise specified, within 30 days from the invoice date by bank transfer to the bank account specified on the invoice.

7.3. Payment shall be deemed completed once Riwega has received the full amount.

7.4. If payment is to be guaranteed by a bank guarantee, the Customer shall provide an acceptable first-demand bank guarantee at least 30 days before the scheduled delivery.

7.5. If advance payment is agreed, it shall refer to the full price and the amount must be credited to the bank account specified by Riwega at least 5 days before the expected delivery date, unless otherwise agreed. If payment against documents has been agreed, payment shall, unless otherwise agreed, be made upon presentation of the relevant documents.

7.6. Unless otherwise agreed, any bank charges or commissions related to the payment shall be borne by the Customer.

8. Retention of Title

8.1. The Products shall remain the property of Riwega until full payment of the purchase price has been received.

8.2. Payments made by bills of exchange or checks shall not be deemed completed until the amount has been credited to Riwega's bank account.

8.3. Until full payment of the purchase price has been made, the Customer is expressly prohibited from selling or pledging the Products and shall ensure their proper maintenance.

8.4. If the contract is terminated due to fault on the part of the Customer, any partial payments already made shall be retained by the Seller as a penalty, without prejudice to the Seller's right to claim further damages.

9. Claims

9.1. Claims regarding packaging, quantity, number, or external condition of the Products ("apparent defects") must be recorded on the freight document and delivery note upon acceptance of the goods, and notified to Riwega by registered mail with return receipt or certified email (PEC) within 3 days of receipt of the Products; otherwise, the right to claim shall be forfeited.

9.2. Claims concerning defects that were not discoverable upon careful inspection at the time of delivery ("hidden defects") must be notified to the Seller within 8 days of discovery and, in any case, no later than 12 months after delivery, by registered mail with return receipt or certified email (PEC). Otherwise, the right to claim shall be forfeited.

9.3. Claims not submitted as described above shall not be considered by Riwega, and the Customer shall have no rights arising therefrom.

9.4. Claims or complaints shall not entitle the Customer to withhold or delay payment of the price of the affected Product or any other deliveries.

10. Warranty for Defects

10.1. The Seller undertakes to remedy defects, quality defects, or non-conformities of the Products attributable to it, provided that no more than 12 months have passed since delivery and the claim is made in accordance with Article 9. Riwega may, at its discretion, choose to repair, replace, refund, or issue a credit note for the purchase price. Repaired or replaced Products will be covered by a 6-month warranty from the date of repair or replacement.

10.2. Riwega does not guarantee the suitability of the Products for specific technical requirements or particular purposes unless expressly agreed in the contract or related contractual documents.

10.3. For certain explicitly designated Products, commercial warranties may additionally apply according to the respective warranty documents provided by Riwega, but exclusively within the specified warranty period and under the conditions set forth therein.

11. Liability

11.1. In no event shall Riwega's liability exceed the purchase price of the products giving rise to the claim. The seller's liability shall be limited solely to direct damages and shall expressly exclude any indirect, incidental, or consequential damages. Irrespective of the legal basis of the claim – whether in contract, tort, warranty, or otherwise – any compensation shall be limited to the purchase price of the respective products.

12. Force Majeure

12.1. The Seller shall be entitled to suspend the performance of its contractual obligations if such performance becomes impossible or unreasonably burdensome due to an unforeseeable event beyond the Seller's control. Such events shall include, but not be limited to, strike, boycott, lockout, fire, war (whether declared or undeclared), civil war, civil unrest, revolution, requisition, embargo, power failure, as well as delays in the supply of components or raw materials. If Riwega exercises this right, the Customer shall be informed in writing without undue delay of the beginning and end of the relevant event.

13. Privacy

13.1. The Customer shall provide Riwega with the personal data required for the performance of contractual obligations and compliance with statutory requirements. Both the Seller and the Customer shall process such personal data in accordance with applicable data protection laws, including the implementation of appropriate security measures. In addition, Riwega's Privacy Policy shall apply.

13.2. The Customer confirms that it has obtained all necessary consents to ensure the lawful processing of personal data before transferring such data to Riwega.

13.3. If the Seller processes personal data on behalf of the Customer, it undertakes to comply with the applicable data protection laws within the scope of any data processing agreement that may have been concluded. If no such agreement exists, the processing shall be carried out in accordance with Riwega's Privacy Policy.

14. Governing Law and Jurisdiction

14.1. The Parties expressly agree that all sales shall be governed by the applicable laws of Italy.

14.2. Any dispute arising out of or in connection with the interpretation or performance of the sale or these GTC shall fall under the exclusive jurisdiction of the Court of Bolzano (Italy).

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