

Pratiko® P+V



APP distilled bitumen waterproofing membrane with dual reinforcement

AT ITC n° 630/04

Compound

Prefabricated modified polymer bitumen membrane composed of polyolefin thermoplastic stereospecific polymers with high molecular weight and special distilled bitumens, with excellent characteristics of resistance to ageing and phase inversion (type APP), already attested by the Technical Certificate of suitability n° 630/04 issued by the ITC.

These built in elements, integrating themselves, enhance the excellent qualities of flexibility, lightness, adhesion, resistance to ageing and to UV rays of the PRATIKO P+V membrane.

ANTI ROOT VERSION

On request a PRATIKO P+V VIADUCT ANTI ROOT version is available for green roof applications. The compound has a special chemical additive (PREVENTOL B2 BAYER) which provides the membrane with high resistance to root penetration, aggressive chemical agents such as fertilizers, weedkillers, etc. The anti root resistance of the product does not harm the health or life of the plants. The anti root additive does not wash out with water, and remain permanently active.

FIRE RESISTANT VERSION

The FIRE RESISTANT version is manufactured with special inorganic non toxic fire retardant additives which confer to the product a fire resistance which conforms to the European directives in this field.

Reinforcement

Dual reinforcement with a woven non woven single strand polyester and rot proof fiber glass mat, which confer to the product high mechanical characteristics and excellent dimensional stability. The fiber glass is positioned in proximity of the upper face of the membrane guaranteeing a longer durability.

Finishes

The PRATIKO P+V membrane is finished on the upper face with a special talc. Upon request, also available a pre-painted red version PRATIKO P+V COLORTEC®.

On the application face, the membrane is finished with a woven non woven polypropylene mat, suitable for both application with adhesive cold bond glues, as well as on PLURA THERMO ADHESIVE. PRATIKO P+V is a product specifically studied to be applied with an adhesive cold bond glue, without however impeding the application by torch or hot air, guaranteeing excellent results of durability and watertightness of the roof.

Stratigraphy



- 1. Polypropylene mat
- 2. Waterproofing mass
- 3. Single strand composite polyester fabric
- 4. Waterproofing mass
- 5. Fibre glass reinforcement
- 6a. COLORTEC® finish
- 6b. Sand or talc finish

Advantages of the system

- System which can be applied with adhesive cold bond glues, as well as on PLURA THERMO ADHESIVE system
- Monolithic system
- System with continuous roof sectors
- System guaranteed against wind uplift action
- Secure system which eliminates fire risk
- System with low environmental impact
- System resistant to aging
- System "on top" with exposed watertightness, with simple detection of imperfections and easily repaired
- System resistant to external fire
- System with low maintenance
- Advantage in terms of sustainability

Advantages in terms of sustainability

- Product ECO 100: product with re-generated raw materials and totally recyclable



EN 13707

EN 13969

UNI 11235

Fields of use



EN13707 Continuous roofs (Certificate n° CE0958-UKCA0120)

	N° layers			Method of application			Type of application			Type								
	Single layer	Double layer	Multilayer	Torch	Hot air	Mixed (Torch / Air)	Cold bond glue	Mechanical fixing	Thermo Adhesive / Self-adhesive	Fully bonded	Partially bonded	Loose laid	Complementary layer	Top layer	Heavy protection	Anti-root	Other uses	
PRATIKO P+V 3 MM	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 3 MM COLORTEC RED	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 4 MM	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 4 MM COLORTEC RED	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 5 MM	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 4 MM FIRE RESISTANT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

EN13969 Retaining Walls (Certificate n° CE0958-UKCA0120)

PRATIKO P+V 4 MM ANTI-ROOT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PRATIKO P+V 5 MM	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

The waterproofing membrane based on distilled bitumen and polymers, as shown in this data sheet does not require the issue of a MSDS, because it does not contain dangerous substances. The information data sheet for the proper use of products is available.

Advantages of PRATIKO P+V

- Proven waterproofing membrane with excellent mechanical performance, dimensional stability and very high puncture resistance.
- Improvement of the walkability and resistance to external strain thanks to the particular architecture of the membrane.
- An excellent resistance to aging thanks to the particular reinforcement also without protection.
- Advantages of the pre-painted COLORTEC:
 - Quicker application, once applied the PRATIKO P+V COLORTEC is already painted and protected.

- Improved aesthetics of the roof.
- Reduction in the completion of the roof.
- A more uniform and homogeneous protective layer, in virtue of the high industrial technology during production.

Sizes & packing

Description	3 mm	4 mm	5 mm
Rolls size [m]	10x1,1	10x1,1	7,27x1,1
Rolls per pallet	30	24	24
Square meters per pallet [m²]	330	264	192

Sizes & packing may vary depending on the type of transportation. The technical data given is based on average values obtained during production. We reserve the rights to change or modify the nominal values without prior notice or advice. The information contained in this data sheet are based on our experience. We cannot take any responsibility for a possible incorrect use of the products. The customer has to choose under their own responsibility a product fit for the intended use.

Technical data

Technical Characteristics	Measure units	Reference norm	P+V			Tolerances
Type of reinforcement			Single strand polyester + Fibreglass			
Upper face finish			Sand or talc / Red Colortec	Sand or talc / Red Colortec	Sand or talc	
Lower face finish			Polypropylene mat			
Visible defects		EN 1850-1	No			
Straightness	mm/10 m	EN 1848-1	< 20			
Length	m	EN 1848-1	10 -1%		7,27 -1%	≥
Width	m	EN 1848-1	1,1 -1%			≥
Thickness	mm	EN 1849-1	3	4	5	±5%
Artificial U.V. ageing		EN 1297	Pass			
Cold flexibility	°C	EN 1109	-20			≤
Cold flexibility after ageing	°C	EN 1296 EN 1109	-15			+15°C
Flow resistance	°C	EN 1110	140			≥
Flow resistance after ageing	°C	EN 1296 EN 1110	140			-10°C
Shear resistance L / T	N/5 cm	EN 12317-1	NPD	600/500		±20%
Peel resistance of joints L / T	N/5 cm	EN 12316-1	50/50			±20N
Tensile strength L / T	N/5 cm	EN 12311-1	700/600			±20%
Elongation at break L / T	%	EN 12311-1	45/45			±15
Tearing resistance L / T	N	EN 12310-1	200/200			±30%
Static puncture resistance	kg	EN 12730-A	15			≥
Dynamic puncture resistance	mm	EN 12691-B	1000			≥
Dimensional stability	%	EN 1107-1	-0,2			≤
Fire resistance		EN 13501-5	F ROOF			
Fire reaction		EN 13501-1	F			
Watertightness	kPa	EN 1928-B	60			≥
Watertightness after ageing	kPa	EN 1296 EN 1928-B	60			≥
Vapour transmission	μ	EN 1931	20000			≥
PRATIKO P+V 4 mm FIRE RESISTANCE version						
Resistance to external fire		ENV 1187 EN 13501-5		B _{ROOF} (t2) *		
Fire reaction		EN 11925-2 EN 13501-1		E		
ANTI-ROOT version						
Root resistance		EN 13948	Pass			

* External fire behavior classification valid exclusively for the membrane applied in the systems indicated as per certification available on request.

NPD = No Performance Declared in accordance with the EU Construction Products Directive.

Other performance data

Technical Characteristics	Measure units	P+V
Specific heat capacity		1.70 KJ/kg°K
Thermal conductivity	λ	0.170 W/m°K

Areas of use

Due to their characteristics, the membranes of the PRATIKO P+V series can be used with success in a wide range of waterproofing applications in civil and industrial works, for example flat, sloped & barrel roofs, terraces, retaining walls, etc.

The particular formulation of the membranes of the PRATIKO P+V series makes them compatible with all PLUVITEC membranes, be they either APP or SBS based.

PRATIKO P+V can be used, based on the type of construction and project, either single layer or in multi-layer systems and especially in those applications where an exceptionally high dimensional stability is required.

In the applications with cold bond adhesives PRATIKO P+V is used as a single layer, prior to having applied suitable bituminous adhesive glue (PRATIKO ADHESIVE) and, where necessary, bituminous mastic (PRATIKO MASTIC).

When the roof slope is superior to 5% the membrane must be exclusively applied by gas or hot air torch without the use of PRATIKO ADHESIVE. The application over heat sensitive substrates (ex. polystyrene insulation) can only be done prior to having applied a layer of PLURA THERMO AD V or P 2,5 mm membrane. The adhesion to the first layer must be total.

For further information and news it is recommended to consult the PLUVITEC technical literature; our Technical office is always available to evaluate particular problems and to provide the necessary assistance to best apply our waterproofing membranes.



Application & Recommendations

With PLURA THERMO ADHESIVE (see drawing A)

- On cementitious substrates or similar apply by roller or airless the bituminous primer PRIMERTEC AD, approx. consumption 300 g/m².
- Apply by torch application in correspondence to the verticals, a strip of APP 4 mm membrane 25 cm wide.
- PRATIKO P+V must always be applied in the same direction and staggered for half of its width for about ¼ in the direction of the length, with the same procedure to that of the layer of PLURA THERMO AD.
- In order to have all the overlaps with the slope, position and apply the PRATIKO P+V membrane starting from the lowest point.
- Position the sheets alternating the overlapped areas, in order to not create joints against the slope towards the drains.
- Cut at 45° the angles of the membrane which will overlap with next sheet (10 x 10 cm).
- Weld to the PLURA THERMO AD membrane the PRATIKO P+V by means of a gas torch.

With cold bond glue PRATIKO ADHESIVE (drawing B)

- On cementitious substrates or similar apply by roller or airless the bituminous primer PRIMERTEC AD, approx. consumption 300 g/m².
- Apply by torch application in correspondence to the verticals, a strip of APP 4 mm membrane 25 cm wide.
- Position the sheets always starting from the lowest point, in order to have all the overlaps with the slope.
- When applying staggered, position the sheets alternating the overlapped areas, in order to not create joints against the slope towards the drains.
- Cut at 45° the angles of the membrane which will overlap with next sheet (10 x 10 cm).
- Fold or re-roll the membrane halfway, leaving the substrate exposed on which the cold bond glue will be applied.
- Pour the bituminous cold bond glue PRATIKO ADHESIVE based on the absorption of the substrate (from 0.8 to 1.5 kg/m²). To avoid spillage along the pails, scrape the edge with the squeegee.
- Pour and uniformly spread in a homogeneous fashion the cold adhesive glue with a metal/rubber squeegee. Cover with the membrane the cold adhesive glue and fold back the other half.
- Carry out the same procedure as described above with the remaining area.

Common process between the systems

Overlaps

- Weld the side (10 cm) and head laps (15 cm) by torching with suitable overlap torch or hot air gun. During this operation, apply pressure to the overlap with a metal roller (15 kg); a bead of bitumen compound must come out from the overlap. For this it is not necessary to iron the overlaps (drawing C).
- Apply the vertical membrane by overlapping it to the flat surface by at least 10 cm, torching it with a suitable safety burner or hot air gun, squeezing the overlaps with a heated trowel, this in order to have a bead of bitumen to round off the edges (drawing D).
- The height of the verticals must be equal or superior to 15 cm of the superior finished layer of the roof.

Recommendations

- The rolls are to be stored in an upright position, indoors in a dry and ventilated area, away from heat sources. Absolutely avoid the stacking of rolls and pallets for storage or transport to avoid possible deformations which may compromise a perfect installation. It is recommended to store the product at temperatures above 0°C.
- The application surface must be smooth, dry and clean.
- The application surface must be priority treated with suitable bituminous primer (PRIMERTEC AD or ECOPRIMER), to eliminate dust and promote adhesion of the membrane.
- **The application surface must not have any depressions to avoid the risk of ponding water, the slope must be at least 1.5% on concrete decks and 3% for steel or wooden ones, this to guarantee a proper run off of rainwater.**
- The application must be done at temperatures superior to +5°C.
- The application must be interrupted in poor atmospheric conditions (high humidity, rain, etc.).
- The pallets are intended for normal warehouse use and not to be lifted to roof tops.

