



Pro.tetto

Heat activated waterproofing membrane

Description

Prefabricated composite heat activated waterproofing membrane composed of distilled bitumen and special polymers which provide thermal adhesive properties to the lower face waterproofing mass.

The upper face waterproofing mass promotes heat transmission to the lower face.

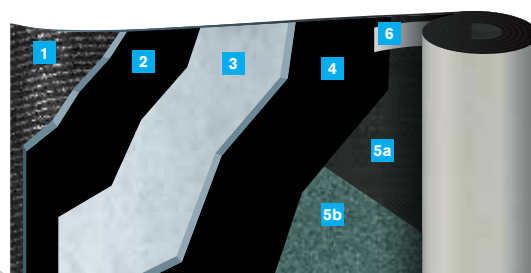
The heat activated waterproofing mass allows the membrane to be positioned and applied without the use of open flame and is particularly indicated for those surfaces which are heat sensitive. PROTETTO has woven non woven single strand composite polyester reinforcement, with high mechanical characteristics. The lower face is backed by a special release film which must be removed during application.

The P version has a polypropylene mat upper face finish.

The PA version upper face of the membrane is self-protected with mineral slates, which reduce heat absorption improving durability, and has a 10 cm side selvedge and 15 cm head selvedge to promote the adhesion between the sheets.

Stratigraphy

1. Release film
2. Heat activated mass
3. Single strand composite polyester fabric
4. Mass which promotes fast heat transmission
- 5a. Polypropylene mat finish
- 5b. Natural mineral finish
6. Release film side selvedge



Methods of application

PROTETTO is used with success as a waterproofing layer under clay roof tiles and can be used in a wide range of both civil and industrial works.

It is particularly indicated for all those areas of application where the use of open flame is not advised (ex. polystyrene insulation & wooden decks).

Use proper individual protective gear.

The application by heat is not suggested when on heat sensitive materials (polystyrene insulation).

- Coordinate the operations in a way to not cause damage to the construction elements and underground structure. Avoid to leave the structure for the night or for periods of prolonged work interruptions without having been properly sealed.
- **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 water drainage spouts should be sufficiently big enough to allow for rain water to be eliminated in an efficient way.
- Prepare cementitious substrates, including verticals and details, with a bituminous primer either by brush or airless, approx. 300/400 g/m².
- Allow this preparation layer to dry before proceeding with any other operation.
- With prefabricated constructions, apply a suitable reinforcing strip along all joints. In the presence of construction joints, prefabricated panels or metal decks, suitable expansion joints are to be considered.
- The membranes must be applied to the substrate fully bonded.
- All details, perimeters, verticals, change of slope as well as projecting area must be fully bonded.

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.

Fields of use



EN13707 Continuous roofs (Certificate n° 0958-CPR-2045/1)

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	Complimentary Layer	Top Layer	Heavy Protection	Anti-root	Other Uses
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PROTETTO HEAT ACTIVATED P 2.5 MM

EN13859-1 Under roof tile

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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.

Technical data sheet

How to apply



PROTETTO

Application

- On cementitious surfaces and similar apply, by roller or airless, bituminous primer, approx. consumption 300 g/m². The operation is not necessary on wooden decks.
- Position PROTETTO on the application surface. (Draw. 1)
- Remove a portion of the release film and adhere that area to the surface by means of torch or hot air, the same procedure should also be done for both head & side laps. It is always suggested to mechanically fix head & side laps. (Draw. 2/3)
- Provide side & head laps respectively of 10 & 15 cm between the sheets, making sure to remove the selvage release strip.
- Remove the release film from the lower face. (Draw. 4/5)
- After application it is suggested to use a roller over the surface to further promote the adhesion.
- The adhesion of PROTETTO will be obtained by direct exposure to the sun. During the winter season it is suggested, after having finished the application, to warm the membrane with a gas or hot air torch and particularly the areas around chimneys, perimeters, protruding objects, skylights to promote the activation of the heat activated mass.
- Particular care should be given during the application around details (protruding objects, chimneys) of the up stands and change of slope, which will be applied by using a hot air torch.
- Apply the clay roof tiles.

Recommendations

- To best use the technical characteristics of bituminous membranes and guarantee the maximum performance and durability of the jobs where they are used, some simple but fundamental rules must be respected.
- 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 rolls shall be kept in a warm or heated storage area during application, should the workability of the material deteriorate or become stiff and difficult to install during application, these should be returned to the heated storage area and substituted with new rolls. The rolls that are temporarily stored on the roof before application, shall be kept elevated by being left on their own pallets and shall be covered and protected from the weather.
 - The application surface must be smooth dry & clean.
 - The application surface must be previously treated with a suitable bituminous primer, to eliminate dust and enhance the 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.
 - In situations of application on vertical surfaces superior to 2 meters or on very sloped substrates, apply suitable mechanical fixings to the head laps, after which they will be sealed when torching the head laps.
 - The application must be done at temperature higher than +5°C.
 - The application must be interrupted in adverse weather conditions (high humidity, rain, etc.).
 - The pallets on which the rolls are packaged are intended for normal warehouse use.
 - The materials on stock should be rotated following a first in first out rotation.



Technical data

Technical Characteristics	Measure Units	Reference Norm	P	PA	Tolerance
Type of reinforcement			Single strand polyester		
Upper face finish			PPL mat	Mineral *	
Lower face finish			Silicon release film		
Length	m	EN 1848-1	10 -1%		
Width	m	EN 1848-1	1 -1%		
Thickness	mm	EN 1849-1	2,5		±5%
Mass	kg/m ²	EN 1849-1		4,0	±10%
Cold flexibility	°C	EN 1109	NPD		
Cold flexibility after ageing	°C	EN 1296 EN 1109	NPD		
Tensile strength L / T	N / 5 cm	EN 12311-1	400/300		-20%
Elongation at break L / T	%	EN 12311-1	35/35		-15
Tearing resistance L / T	N	EN 12310-1	120/120		-30%
Static puncture resistance	kg	EN 12730	10		
Dynamic puncture resistance	mm	EN 12691-B	700		
Dimensional stability	%	EN 1107-1	-0,3		
Loss mineral	%	EN 12039		30	
Fire resistance		EN 13501-5	F ROOF		
Fire reaction		EN 13501-1	F		
Watertightness after artificial ageing	kPa	EN 1296	60		
Watertightness	kPa	EN 1928	60		
Water vapour permeability	μ	EN 1931	20000		

* Mineral self-protected products may undergo color tone variations due to the time and length of storage. Exposure to atmospheric conditions, after application, will tend to uniform the color after a few months. The change in color tone cannot therefore be contested and / or complained of as it is a natural phenomenon that the slate manufacturer himself cannot guarantee.
NPD = No Performance Declared in accordance with the EU Construction Products Directive.

Sizes & packing

	P 2,5 mm	PA 4,0 kg/m ²
Rolls size [m]	10x1	10x1
Rolls per pallet	30	27
Square meters per pallet [m ²]	300	270

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.

