

# PLURA® il THERMOADESIVO PARKING

Thermal activated composite waterproofing membrane with high performance

## Compound

Prefabricated thermal activated composite waterproofing membrane, composed of distilled bitumen and special synthesis polymers, which provide thermal adhesion properties to the lower face waterproofing compound.

The waterproofing compound of the upper face allows for fast heat transmission to the lower face.

The thermal activated waterproofing compound allows the product to be positioned and applied without the initial use of heat.

PLURA THERMO AD PARKING is specifically developed for use on bridges, viaducts, parking decks and for all those applications where the use of road asphalt is required.

## Reinforcement

PLURA THERMO AD PARKING has a rot proof composite woven non woven continuous single strand heavy weight polyester with very high mechanical characteristics.

## Finishes

The upper face is self protected with a woven non woven polypropylene mat. The lower face is provided with a thermoplastic removable film.

## Stratigraphy



1. Release film
2. Thermal activated mass
3. Woven non woven single strand composite polyester reinforcement-PARKING
4. Mass which promotes fast heat transmission
5. Polypropylene mat
6. Release film side selvage

## Advantages of PLURA THERMO AD PARKING

- PLURA THERMO AD PARKING is resistant to road salts. The coefficient of adhesion is superior to that of the road asphalt to be used.
- It has sufficient resistance to support asphalt compactors without being damaged.
- It is easy to apply, allowing for minimum closure time of roads or similar, guaranteeing total adhesion to the substrate, avoiding points of discontinuity, bubbles, etc.
- For the paving element both traditional pavement asphalt as well as poured mastic asphalt (GUSSASPHALT) can be used.

## Advantages of the system

- System that is applied rapidly allowing for minimum closure time of roads, bridges, parking areas.
- Monolithic system.
- System with low environmental impact.
- System with continuous roof sectors.

## Advantages in terms of sustainability

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



EN 14695

## Fields of use



### EN14695 Viaducts (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
<b>PLURA THERMO AD PARKING P 4 MM</b>	▪								▪	▪			▪		▪		
<b>PLURA THERMO AD PARKING P 5 MM</b>	▪								▪	▪			▪		▪		

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

Technical Characteristics	Measure units	Reference norm	P	Tolerance
Type of reinforcement			Single strand polyester	
Upper face finish			Polypropylene mat	
Lower face finish			Silicon release film	
Length	m	EN 1848-1	10 -1%   8 -1%	≥
Width	m	EN 1848-1	1 -1%	≥
Thickness	mm	EN 1849-1	4   5	±5%
Cold flexibility	°C	EN 1109	NPD	≤
Cold flexibility after aging	°C	EN 1296 EN 1109	NPD	+15°C
Flow resistance	°C	EN 1110	NPD	≥
Flow resistance after aging	°C	EN 1296 EN 1110	NPD	-10°C
Shear resistance L / T	N/5 cm	EN 12317-1	1100/900	-20%
Tensile strength L / T	N/5 cm	EN 12311-1	1200/1000	-20%
Elongation at break L / T	%	EN 12311-1	45/45	-15
Tearing resistance L / T	N	EN 12310-1	300/300	-30%
Static puncture resistance	kg	EN 12730	25	≥
Dynamic puncture resistance	mm	EN 12691-B	1750	≥
Dimensional stability	%	EN 1107-1	-0,5	≤
Fire resistance		EN 13501-5	F ROOF	
Fire reaction		EN 13501-1	F	
Watertightness	kPa	EN 1928-B	60	≥
Watertightness after aging	kPa	EN 1296 EN 1928-B	60	≥
Vapour transmission	μ	EN 1931	100000	≥
Bond strenght	N/mm <sup>2</sup>	EN 13596	0,42	≥
Shear strenght	N/mm <sup>2</sup>	EN 13653	0,24	≥
Compatibility by heat conditioning	%	EN 14691	180	≥
Crack Bridging Ability	°C	EN 14224	-20	≥
Resistance to dynamic water pressure		EN 14694	Pass	
Resistance to compaction of an asphalt layer		EN 14692	Pass	
Behaviour of bitumen sheets during application of mastic asphalt	%, mm, %	EN 14693	NPD	

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

## Other performance data

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

## Sizes & packing

Description	P 4 mm	P 5 mm
Rolls size [m]	10 x 1	8 x 1
Rolls per pallet	24	23
Square meters per pallet [m <sup>2</sup> ]	240	184

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.

## Areas of use

PLURA THERMO AD PARKING can be used with success as a waterproofing element in a wide range of both civil and industrial works, particularly for those which undergo considerable stress of mechanical nature such as bridges, viaducts, hydraulic works, parking decks, etc.

The particular formulation of the membranes of the PLURA THERMO AD PARKING makes it compatible with all PLUVITEC membranes, be they either APP or SBS based.

The particular thermo activated waterproofing compound of PLURA THERMO AD PARKING will activate and develop its full adhesive power binding to the substrate when the asphalt is applied.

If applying two layers, the adhesion will be obtained during the torching of the second layer.

The substrate must be dry, clean, exempt from irregularities higher than 1,5 mm and with the correct proper slopes.

The concrete will have aged at least two weeks and the water content cannot be higher than 5%.

The cohesion of the concrete: tablet test: 1 MPA.

When waterproofing road works, the hot asphalt will be applied directly on the membrane without any slip sheet. The thickness of the binder course must be minimum 6 cm with a granulometry of 0-15 mm, while for the surface course the thickness must be minimum 4 cm and granulometry of 0-12 mm.

If used on a new laying surface with a residual humidity of more than 5% or in case of refurbishing an existing driveway cover, before laying the membrane PLURA il THERMOADESIVO PARKING, it is necessary to remove all the existing waterproofing layers and PRIMER EPOX must be applied.

## Applications

- Apply by roller or airless the bituminous primer PRIMERTEC AD, approx. consumption 300 g/m<sup>2</sup>.
- Apply at site, by torch or hot air gun, all parapets/verticals with a 25 cm strip of PLURA THERMO AD PARKING.
- Position the PLURA THERMO AD PARKING rolls on the application surface. (Drawing 1)
- Provide for side & head laps respectively of 10 & 15 cm between the sheets, making sure to also remove the side overlap thermoplastic film on the upper face.
- Remove the thermoplastic film from the lower face. (Drawing 2)
- Carry out thermal activation by torch or hot air gun of the head overlaps. (Drawing 3)
- After having positioned the rolls, apply pressure over the surface using a suitable roller to promote adhesion. (Drawing 4)
- Apply the membrane on the verticals by overlapping those on the horizontal surface by at least 10 cm, thermal activating by torch or hot air gun. (Drawing 5)
- Apply directly on to the PLURA THERMO AD PARKING the hot bituminous asphalt. (Drawing 6)
- The adhesion of the PLURA THERMO AD PARKING will occur with the heat of the sun and that of the bituminous asphalt.

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.



## 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.**
- 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.