AUTOTENE ASFALTICO ROAD 200

SELF-THERMOADHESIVE MEMBRANE IN ELASTOPLASTOMERIC POLYMER BITUMEN DISTILLATE FOR COLD WATERPROOFING PAVED DECKS WITH HOT BITUMINOUS CONGLOMERATE



DESCRIPTION

AUTOTENE ASFALTICO ROAD 200 is the membrane that creates a bond thanks to the heat of the bituminous paving that is spread over top of it and whose adhesion continues and strengthens over time under the action of traffic and solar heat. The bonding to the substrate is no longer performed by the operator but rather by the subsequent paving operations of the bituminous condomerate. The heat of the surface layer activates the adhesive properties of the compound that covers the lower face of the membrane in contact with the substrate, automatically creating a bond without possibility of error. Compared to the traditional technique, AUTOTENE ASFALTICO ROAD 200 is faster, flame use being limited only to the sealing of the overlapping ends.

AUTOTENE ASFALTICO ROAD 200 is a waterproofing membrane consisting of a polymeric continuous phase compound with a distilled bitumen base, selected for industrial use, and elastomeric and plastomeric polymers, durable and heat resistant. The membrane is reinforced with an elastic nonwoven polyester fabric and is puncture resistant.

The lower face of **AUTOTENE ASFALTICO ROAD 200** is coated with a self-adhesive hot melt compound based on SBS elastomers and tacky resins, elastic even at low temperatures, which is protected by a peelable silicone film divided into two overlapping halves. The upper face of the membrane has a 60 mm band along the edge with the same treatment, protected by a strip of bisiliconate film, while the rest of the surface is covered by a fine mineral layer that provides an optimal traffic surface during laying, but then gets incorporated into the membrane during the paving of hot asphalt, ensuring complete bonding between the layers.

AUTOTENE ASFALTICO ROAD 200 is designed to withstand the laying of bituminous conglomerate at 180°C, including rolling.

APPLICATION FIELDS

AUTOTENE ASFALTICO ROAD 200 is used as a single layer for waterproofing both

carefully smoothed concrete road decking and orthotropic steel plates up to a maximum slope of 5%, where it is hot-paved with a bituminous conglomerate at 180°C.

AUTOTENE ASFALTICO ROAD 200 adheres to aluminium, copper, lead, steel and galvanised steel even without using the primer as long as the surface is clean, dry and degreased, but if the surface may still be greasy it is preferable to prep the surface with a coat of INDEVER PRIMER E.

METHOD OF USE

The substrate must be smooth, clean and dry. Concrete substrate preparation. Particular care must be taken in the preparation of the surfaces to be waterproofed. Any holes should be filled and sealed with suitable mortars or epoxy plaster. An adequate slope must be provided for normal water run-off, and the substrate must be in good condition, perfectly clean, free of oils, grease, dust, concrete and cement mortar residues, release agents and pre-existing waterproofing. The surfaces must be dry and set for at least 20 days to ensure good adhesion of the waterproofing covering. The surface will have to be sanded and/or bush-hammered, even when previous restoration work has been carried out using grout or self-levelling concrete with reduced shrinkage. This preparatory work must be followed by careful cleaning of the affected surfaces even using power washing (preferably in hot or dry periods) and consequently blow dried with compressed air. The concrete surfaces must be free of residues of antievaporative treatments.

Using the calcium carbide method, extracting concrete powder through drilling approx. 2 cm, the substrate humidity should be less than 4%. Too rough surfaces do not allow the membrane to adhere completely. Before laying the membrane, the entire surface should be treated with a coat of INDEVER PRIMER E spread in the order of 0.2-0.4 kg/m².

Preparation of the steel decking. The deck surface, including any curbs, must be sandblasted with silica, quartz sand that has been washed, dried and protected in sacks, having a grain size of between 0.2 and 0.9 mm or preferably treated by metal granules to





MEMBRANES FOR THE WATERPROOFING OF CONCRETE BRIDGE DECKS AND OTHER CONCRETE SURFACES SUBJECT TO TRAFFIC

Under bituminous conglomerate

- AUTOTENE ASFALTICO ROAD 200

obtain at least grade 2 1/2 Svenks Standard and a Ra degree of roughness of between 15 and 25 $\mu m.$

Do not proceed with preparation in the presence of fog or rain. To avoid the reoccurrence of oxidation, primer should be immediately applied follow the preparation process described above, within a maximum of 2-3 hours.

The clean, degreased and dry metal deck will be treated with a coat of INDEVER PRIMER E, approximately 200 g/m², preferably with a brush and at a temperature above 5°C.

Laying the membrane. Approximately 6 hours after application of the primer on the whole flat part of the deck, the membrane sheets will be laid parallel to the lane direction, offsetting by half a roll. Cross laying on the deck is prohibited. The sheets will be laid out starting from the lowest part of the deck.

The first step is to remove the siliconised film from below the first roll, carefully pressing it down on the substrate. The next roll, without removing the silicone-coated film, is unwound and aligned to the side of the membrane laid previously, overlapping on it laterally for about (See following)





	Standard	т	AUTOTENE ASFALTICO ROAD 200
Reinforcement			Spunbond non-woven polyester fabric
Thickness	EN 1849-1	±5%	4 mm
Roll size	EN 1848-1		1×10 m
Mass per area non-woven polyester fabric reinforcement		≥	200 g/m ²
Softening point of the upper compound		≥	140°C
Softening point of the lower compound		≥	110°C
Reinforcement distance from the upper face			approx. 0.5-1 mm
Watertightness	EN 1928 - B	≥	500 kPa
Shear resistance L/T	EN 12317-1	-20% (*)	750/600 N/50 mm
Maximum tensile force L/T	EN 12311-1	-20%	850/700 N/50 mm
Elongation L/T	EN 12311-1	±15% V.A.	50/50%
Resistance to impact	EN 12691 – A	≥	1 250 mm
Resistance to static loading	EN 12730 - A	Þ	20 kg
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	200/200 N
Dimensional stability L/T	EN 1107-1	≤	0.30%
Flexibility to low temp. (lower face)	EN 1109	≤	-15°C
Flow resist. at high temp. • after ageing	EN 1110 EN 1296-1110	≥ -10°C	100°C 90°C
Specific characteristics for waterproofing surfaces subject to traffic (EN 14695)			
Dynamic waterproofness	EN 14694	≥	500 kPa
Comp. for thermal conditions	EN 14691	≥	80%
Adhesive resistance (1st layer)	EN 13596	≥	0.4 N/mm ²
Shear resistance	EN 13653	≥	0.15 N/mm ²
Compaction resistance	EN 14692		Passes the test
Cracking resistance - Type 1 Cracking resistance - Type 3	EN 14224 EN 14224	≤ ≤	-20°C -20°C
Water absorption	EN 14223	≤	1.5%

(*) Or breakage away from the seam

(See previous)

6 cm. The silicone-coated film is subsequently removed from below the second roll, making sure to press it down with your feet. The lateral overlap can now be bonded by pressing the overlap after having removed the siliconecoated strip that covers it. The front overlaps instead must be torch bonded. The definitive bonding, together with the gluing of the laying surface, will be done with the indirect heat from laying the bituminous paving.

The vertical parts are coated with a torch bonded strip of membrane of the TESTUDO ROAD 250/4 type, which will exceed the height of the paving by at least 10 cm and will drop by at least 10 cm on the membrane that covers the horizontal surface.

The area around drains will be lined with a piece of AUTOTENE ASFALTICO ROAD 200 membrane, at least 20 cm larger than the wing of the drainage port connection, that, after removing the silicon film, will be flame-bonded to the surface. The same bonding technique will then be used for the connection of the waterproof layer on the piece of membrane and the wing of the drainage port.

PRECAUTIONS

Distilled bituminous polymer membranes are thermoplastic and therefore soften in the summer, and it should be noted that the surfaces of the membrane coated with the self-adhesive compound have strong adhesive properties and the siliconised film will have to be removed only when it is certain that the sheet has been correctly positioned. At low temperatures, however, the membranes harden and the adhesive properties decrease, but it is sufficient to heat the adhesive surface with a "weak" flame to immediately reactivate the compound's adhesive properties.

The air temperature during installation must not be less than 10°C, but care must be taken to avoid condensation phenomena on the substrate as it may be cooler than the surrounding air. If there is only slight condensation, heating the substrate with a flame can solve the problem, while in case of rain or fog or high humidity that results in a wet substrate the application must be suspended.

During adhesion there is always a latent risk of bubble formation due to the humidity contained in the cement substrate, so it is advisable to pave over the waterproof coating as soon as possible.

PRODUCT FINISHING

SAND BLASTING. It is carried out by means of the hot adhesion of sand from mi-nerals which are free from free willow, avoids the gluing of the coil turns and acts as adhesion intermediate agent for hot and cold applied paints and adhesives.

REMOVABLE SILICONE-COATED FILM. The lower face of the membrane is covered in a silicone-coated film which preserves the adhesive mix

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