danosa

Waterproofing

ESTERDAN 40 P ELAST.

Tough SBS elastomeric 4 kg/m² underlay. Torch applied.

BBA 10/4787 (PS1)

EPD S-P-01493

Bituminous SBS modified membrane reinforced with a non-woven polyester felt. Finished with a thermofusible film.

Presentation

- Length (cm): 1000
- Width (cm): 100
- Thickness (mm): 3.3
- Product code: 141131

Technical Data

Concept	Value	Standard
Mass per unit area (nominal) (kg/m²)	4	-
Density (kg/m³)	1212	-
External fire behaviour	Broof(t1)	UNE-EN 1187; UNE-EN 13501-5
Durability flexibility	-5 ± 5	-
Creep durability (ºC)	100 ±10	UN-EN 1110
Elongation at break longitudinal (%)	45 ±15	UNE-EN 12311-1
Elongation at transverse break (%)	45 ±15	UNE-EN 12311-1
Watertightness at 10 kPa (Type A)	Pasa	UNE-EN 1928

Concept	Value	Standard
Watertightness at 60 kPa (Type A)	Pasa	UNE-EN 1928
Water vapour resistance factor (μ)	20.000	UNE-EN 1931
Low temperature flexibility (ºC)	<-15	UNE-EN 1109
Reaction to fire	E	UNE-EN 11925-2; UNE-EN 13501-1
Resistance to static loading (kg)	>15	UNE-EN 12730
Resistance to root penetration	No Pasa	UNE-EN 13948
Longitudinal tensile strength (N / 5cm)	700 ± 200	UNE-EN 12311-1
Transverse tensile strength (N / 5cm)	450 ± 150	UNE-EN 12311-1
Longitudinal resistance to tearing (nail shank) (N)	NPD	UNE-EN 12310-1
Transversal resistance to tearing (nail shank) (N)	NPD	UNE-EN 12310-1
Resistance to impact, A (mm)	>1000	UNE-EN 12691
Resistance to impact, B (mm)	>1000	-
Joint Strength: Welding Shear	450 ± 150	UNE-EN 12317-1
Hazardous substances	PND	-

Addtitional Technical Data

Concept	Value	Standard
Adhesion of granules (%)	NPD	UNE-EN 12039
Dimensional stability at elevated temperatures (longitudinal) (%)	<0.6	UNE-EN 1107-1
Dimensional stability at high temperatures (transversal) (%)	<0.6	UNE-EN 1107-1
Creep resistance at high temperatures (ºC)	>100	UN-EN 1110
UV, heat and water durability: Flexibility at low temperature (ºC)	NPD	-
UV, heat and water durability: Flow resistance at elevated temperature (ºC)	NPD	-

Environmental Information

Concept	Value	Standard
Radon diffusion coefficient (m^2 / s)	2.8 Exp -12	ISO/DTS 11665 - 13
Volatile organic compounds (COV's) ($\mu g/m^3$)	50 (A+)	ISO 16000-6:2006
Post-consumer recycled content (%)	35	-
Manufactured in	Fontanar - Guadalajara (España)	-

Instruction for Use

- Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs. When bonding the substrate should be prepared using a primer either Impridan 100, CURIDAN, MAXDAN or MAXDAN CAUCHO at the recommended rate prior to installation of the waterproofing system. Where the membranes are adhered to insulation boards, the resistance to wind uplift will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This should be taken into account when the insulation material is selected. At falls in excess of 5º (1:11) precautions against slippage, and requirements for mechanical fixing should be observed. The membrane may be laid in conditions normal to roofing work and must not be laid in rain, snow or heavy fog, nor if the temperature falls below 5ºC, unless precautions against condensation have been taken. The roofing layers must always be installed with staggered overlaps and in such a manner that no counter-seams in the direction of the outlets are made.r- Attachment of reinforced bituminous membrane roofing maybe achieved by full bonding, by partial bonding or loose laid (ballasted); the choice should depend upon the type of substrate and the required resistance to wind uplift pressure. The first layer is installed over the substrate, full bonded, partially bonded, or loose laid (ballasted). Fully bonded torch-applied membranes should only be used with non-combustible substrates and with surfaces designed to enable the torch application of subsequent layers. It is possible to install a torch-receivable first layer in hot bitumen, and then torch apply the second or capping sheet, which should be specifically designed for torching. Bonding is achieved by melting the lower surface by torching and pressing the membrane down. Care must be taken not to overheat the membrane. The first layer is installed with side laps of 60 mm and end laps of 75 mm. The top layer/cap sheet is laid over the first layer in the same direction, and fully bonded. The top layer/cap sheets are installed with side laps for the mineral surfaced membranes determined by the selvedge edge and for sanded or plastified top layers a minimum of 75 mm and end laps 100 mm wide.

When partially bonded either a layer of GLASDAN 800 P PERFORADO or other suitable venting layer is loose-laid across the substrate edge to edge. The first layer is fully bonded over the venting layer in the direction with side laps of 80 mm and end laps of 75 mm. The top layer/cap sheet is laid over the first layer in the same direction, and fully bonded. The top layer/cap sheets are installed with side laps for the mineral surfaced membranes determined by the selvedge edge and for sanded or plastified top layers a minimum of 75 mm and end laps 100 mm wide. Loose-laid is possible in ballasted systems. A separating layer is loose-laid over the substrate to act with overlaps of 100 mm. The first layer is loose-laid over the separation layer with side laps of 60 mm and end laps of 80 mm wide. The laps are sealed by torch welding. The top layer is laid over the first layer in the same direction, and fully bonded. The top layer/cap sheets are installed with side laps for the mineral surfaced membranes determined by the selvedge edge and for sanded or plastified top layers a minimum of 75 mm and end laps 100 mm wide.The waterproofing system is ballasted with a proper finishes. In all systems, laps between the membrane and any base sheets should be offset by a minimum of 300 mm.**ADEVERTISMENT:** Attachment of reinforced bituminous membrane roofing san also be achieved by mechanical fastening with screws and stress plates or by nailing. Mechanical fastening of membranes is possible by installing a specially manufactured membrane

mechanically fastened with screws and stress plates along the lap, with joints then sealed by torching, with subsequent layers fully bonded. Nailing fastening of membranes is possible by installing a sacrificial specially manufactured layer mechanically fastened with screws and stress plates, or alternatively nails, with subsequent layers fully bonded.

Indications and Important Recommendations

- Not suitable as cap sheet on green roofs; use GARDEN variant.
- A separating layer (DANOFELT or DANODREN) shall be laid before laying the heavy protection (paving, gravel, topsoil, etc).

Maintenance Recommendations

- Please refer to DANOSA UK Technical Statement ‘Flat Roof Waterproofing – Cleaning and Maintenance Recommendations’.

Handling, storage and preservation

- Before moving the pallet, check the condition of the shrink-wrap and reinforce if necessary.
- The product must be stored in a dry place protected from rain, sun, heat and low temperatures.
- The product must be stored in an upright position.
- Pallets shall not be stacked on top of each other.

Notice

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