POLYDAN 180-50/GP ELAST.

High Performance SBS elastomeric 5 kg/m² capping sheet. Torch Applied.



BBA 10/4787 (1)

ETE 06/0062

Bituminous SBS modified capsheet reinforced with a heavy non-woven polyester felt. The upper surface is finished with mineral chipping. The underside has a quick-melt thermofusible film. Designed for torch-applied applications and Safe2Torch details using hot-air.

Presentation

- Length (cm): 800
- Width (cm): 100
- Colour: Grey
- Thickness (mm): 3.5
- Product code: 141435

Technical Data

Concept	Value	Standard
Mass per unit area (nominal) (kg/m²)	5	-
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
Water vapour resistance factor (μ)	20.000	UNE-EN 1931
Low temperature flexibility (ºC)	<-15	UNE-EN 1109

Concept	Value	Standard
Reaction to fire	E	UNE-EN 11925-2; UNE-EN 13501-1
Resistance to static loading (kg)	>20	UNE-EN 12730
Resistance to root penetration	No pasa	UNE-EN 13948
Longitudinal tensile strength (N / 5cm)	900 ± 250	UNE-EN 12311-1
Transverse tensile strength (N / 5cm)	650 ± 250	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)	>1500	UNE-EN 12691
Resistance to impact, B (mm)	>1500	-
Joint Strength: Welding Shear	650 ± 250	UNE-EN 12317-1
Hazardous substances	NPD	-
Resistance to root penetration	No pasa	UNE-EN 13948

Addtitional Technical Data

Concept	Value	Standard
Density (kg/m³)	1428	-
Adhesion of granules (%)	<30	UNE-EN 12039
Creep resistance at high temperatures (ºC)	>100	UN-EN 1110
Durabilidad UV; calor y agua: Flexibilidad a baja temperatura (ºC)	-5 ± 5	-
Durabilidad UV; calor y agua: Fluencia a alta temperatura (ºC)	100 ± 10	-

Environmental Information

Concept	Value	Standard
Volatile organic compounds (COV's) (µg/m³)	50 (A+)	ISO 16000-6:2006
Post-consumer recycled content (%)	35	-
Manufactured in	Fontanar - Guadalajara (España)	-

Standards and Certification

- BBA 10/4787 Product Sheet 1 "GLASDAN ELAST, ESTERDAN ELAST AND POLYDAN ELAST ROOF WATERPROOFING MEMBRANES".
- In accordance with the UNE-EN 13707 standard ‘Flexible sheets for waterproofing - Reinforced bitumen sheets for roof waterproofing - Definitions and characteristics’.
- Complies with CE marking requirements.
- DTA 5/09-2088 "Glasdan ELAST-Esterdan ELAST-Polydan ELAST".
- DTA "Esterdan FM".
- ETE 06/0062 "Esterdan Plus FM Bilayer".
- EOTA Guide 006.

Scope

- Capsheet in multi-layer waterproofing systems.
- Capsheet in single-layer waterproofing systems.

Advantages & Benefits

- High movement capability.
- Helps to increase the durability of the sheet.
- It retains its properties better over time.
- It has a heavy polyester felt reinforcement, heavier than LBM-(SBS)-50/G-FP sheets.
- The higher grammage of the polyester reinforcement gives the sheet higher mechanical performance in tensile, static and dynamic piercing and tearing.
- A membrane for instances where high waterproofing performance is required.
- High dimensional stability.
- High tensile strength and high elongation at break.
- High resistance to static and dynamic piercing.
- Rot-proof.
- The sheet, being made of a bitumen mastic modified with SBS-type elastomeric polymers, substantially improves other bituminous mastics, providing much better performance in terms of reaction at high and low temperatures, elasticity and resistance to ageing, which leads to greater durability of the sheet and greater safety of the waterproofing membrane.
- Limits deformations and stresses in the waterproofing membrane.
- Very stable in the long term.
- Has good piercing protection from possible mechanical damage, derived from the occasional pedestrian traffic typical of flat roofs.

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.
- 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.

NOTE: 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

- In case of new construction and renovation, possible chemical incompatibilities with APP plastomer-modified bitumen sheets shall be taken into account.
- In case of refurbishment, chemical incompatibilities with old waterproofing systems consisting of PVC membranes, modified tar-based mastics or any other, shall be taken into account, and it may be necessary to remove them completely or to use suitable separating layers.
- If it is necessary to adhere to metallic or slightly porous elements, a bituminous primer (IMPRIDAN 100) shall be applied to the entire surface to be welded beforehand.
- On exposed self-protected roofs, occasional water retention that could lead to sediment accumulation and damage to the waterproofing membrane shall be avoided.

- This product may form part of a waterproofing system, so all the documents referred to in the Danosa Solutions Manual must be taken into account, as well as all the regulations and legislation that must be complied with in this respect.
- Self-protected sheets finished in light colours perform better thermally.
- Self-protected sheets in coloured mineral or ceramic granules may have different colour shades depending on the different production batches. The mineral granule may darken naturally over time.
- Not suitable as cap sheet on green roofs; use GARDEN variant.
- Possible incompatibility between thermal insulation and waterproofing shall be checked.
- Special attention must be paid to the execution of the singular points, such as parapets (meetings with vertical and emergent elements), drains, expansion joints, etc.
- Polyurethane foam shall not be sprayed directly on top of the waterproofing without the use of a suitable separating layer (geotextiles, mortar layers, polyethylene film, etc).
- If expansion that could affect the sheet is expected, a geotextile separating layer (Danofelt PY 200) shall be used between the sheet and the extruded polystyrene insulation panels, so that each product expands independently.
- NOTE: For more information on the Danosa systems in which this product is used, please see the document "Waterproofing Solutions".

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.
- The product will be used on a first-come, first-served basis.
- This product should not be installed when the temperature is below -5ºC.
- This product is not toxic or flammable.
- Waterproofing work must not be carried out when weather conditions may be detrimental, in particular when it is snowing or there is snow or ice on the roof, when it is raining or the roof is wet, surface dampness >8% according to NTE QAT, or when a strong wind is blowing.
- Pallets shall not be stacked on top of each other.
- For high storage, the racks must have three cross members, or braces under the wooden pallet skids.
- For handling with a crane, use a protective net as indicated on the pallet label.
- Danosa recommends consulting the safety data sheet for this product, which is permanently available at danosa.com, Knowlegde Portal, or it can be requested from our Technical Department.
- In all cases, the Occupational Safety and Hygiene standards, as well as the standards of good construction practice, must be taken into account.
- For further information, please contact our Technical Department.

Notice

- The information contained in this document and any other advice provided, are given in good faith, based on DANOSA's current knowledge and experience when products are properly stored, handled and applied, in normal situations and in accordance with the recommendations of DANOSA. The information applies only to the application (s) and the product (s) to which reference is expressly made. In case of changes in the parameters of the application, or in case of a different application,

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