ESTERDAN PLUS 50/GP ELAST

Waterproofing sheet of SBS modified bitumen with mineral self-protection.

BBA 10/4787 (1)

ETE 06/0062

ESTERDAN PLUS 50/GP ELAST. is a waterproofing bituminous sheet with self-protected surface of 5.0 kg/m². Composed of a reinforced polyester felt reinforcement, covered on both sides with SBS modified bitumen mastic. On the upper side of the sheet, mineral protection in grey (black) colour is used as protective material. The anti-adhesive material used on the lower side is polyethylene film.

Presentation

- Length (cm): 800
- Width (cm): 100
- Colour: Grey
- Thickness (mm): 3.5(SOLAPO)
- Product code: 141262

Technical Data

Concept	Value	Standard
External fire behaviour	Broof(t1)	UNE-EN 1187
Density (kg/m³)	1428	-
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	-

Concept	Value	Standard
Humidity resistance factor	20.000	UNE-EN 1931
Low temperature flexibility (ºC)	<-15	UNE-EN 1109
Mass per unit area (nominal) (kg/m²)	5	-
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	-
Transverse tensile strength (N / 5cm)	450 ± 150	-
Longitudinal resistance to tearing (nail shank) (N)	NPD	-
Transversal resistance to tearing (nail shank) (N)	NPD	-
Resistance to impact, B (mm)	>1000	-
Hazardous substances	PND	-

Addtitional Technical Data

Concept	Value	Standard
Adhesion of granules (%)	<30	UNE-EN 12039
Dimensional stability at elevated temperatures (longitudinal) (%)	<0.3	UNE-EN 1107-1
Dimensional stability at high temperatures (transversal) (%)	<0.3	-
Creep resistance at high temperatures (ºC)	>100	UN-EN 1110

Environmental Information

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

Standards and Certification

- Avis Technique 5/09-2090 “Polydan monocouche apparent“.
- BBA 10/4787 Product Sheet 1 "GLASDAN ELAST, ESTERDAN ELAST AND POLYDAN ELAST ROOF WATERPROOFING MEMBRANES".
- In accordance with the UNE-EN 13707 standard for flexible sheets for waterproofing. Reinforced bituminous sheets for roof waterproofing. Definitions and characteristics.
- It complies with the requirements of the Technical Building Code (CTE).
- Complies with CE marking requirements.
- DIT 550R/16 "ESTERDAN PENDIENTE ZERO".
- DTA 5/09-2088 "Glasdan ELAST-Esterdan ELAST-Polydan ELAST".
- DTA 5/09-2089 "Esterdan FM".
- DTA 5/15-2483 “Polydan Plus FM“.
- ETE 06/0062 "Esterdan Plus FM Bilayer".
- EOTA Guide 006.

Scope

- Waterproofing under tiles on pitched roofs, both for its thickness and its mechanical resistance.
- Top sheet in multi-layer roof waterproofing systems with mineral self-protection.
- Single-layer membrane for waterproofing bonded self-protected roofs.

Advantages & Benefits

- High static and dynamic piercing resistance.
- Self-healing and Rot-proof.
- The mineral finish gives the sheet UV resistance.
- High tensile strength and high elongation at break.
- High resistance to tearing.
- Total impermeability to water and water vapour.
- Very stable in the long term.
- Allows for adaptation to any type of geometry.

Support

- Roofs with heavy bonded, unbonded or floating and self-protected bonded protection.
- Over compatible thermal insulation.
- Concrete supports
- Mortar supports

Instruction for Use

Preparation of the substrate:
-The surface of the base substrate shall be resistant, uniform, smooth, clean, dry and free of foreign bodies. In the case of thermal insulation, the boards shall be laid in a grid and with no gaps between boards greater than 0.5 cm.

- Top layer of multi-layer membranes with mineral self-protection. The sheet is laid in the same direction as the bottom sheet, with the overlap line offset by approximately half of the roll. The sheet is fully welded to the bottom sheet with a blowtorch. The overlaps are to be welded and are

8±1 cm in the longitudinal direction and 10±1 cm in the transverse direction. To join the transverse overlap at the ends of the rolls, it is necessary to heat the transverse edge of the lower sheet in a 10 cm strip, eliminating or embedding the protection aggregate in the bituminous mass and then weld the end of the following piece.
- Self-protected single-layer membrane, adhered system. The adhesion of the membrane to the substrate is done with a blowtorch. In the case of mortar or concrete substrates, a bituminous primer (Curidán, Impridán 100, Maxdán or Maxdán Caucho) must be applied beforehand. If the substrate is a weldable thermal insulation board, i.e. asphalt-finished (Rocdán A or Rocdán PIR VA), the primer is not necessary. The overlaps are to be welded and shall be 8±1 cm in the longitudinal direction and 10±1 cm in the transverse direction. To join the transversal overlap at the ends of the rolls, it is necessary to previously heat the transversal edge of the lower sheet in a strip of 10 cm, eliminating or embedding the protection aggregate in the bituminous mass and then weld the end of the following piece.
- Waterproofing under tiles on pitched roofs. Proceed as described above, but mechanically fasten the overlaps.

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 renovation, chemical incompatibilities with old waterproofing consisting of flexible PVC sheets, 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 (geotextiles, mortar layer, polyethylene film, etc).
- 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.
- Self-protected sheets are exposed sheets, so care must be taken when installing them.
- NOTE: For more information on the Danosa systems in which this product is used, please see the document "Waterproofing Solutions".
- Do not use as a top sheet on green roofs.
- 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.

Maintenance Recommendations

- Maintenance requirements for Danosa Roofing Products The following maintenance checks must be adhered to: - A general examination on the condition of the waterproofing and surrounding roof components. - An inspection of all functional roofing elements including skylights, outlets, upstands,

penetrations and any other visible roofing components. - Clean outlets, drains, gutters and remove any debris from the roof. - Periodic removal of mildew, moss, herbs or any other kind of vegetation that has been accumulation on the waterproofing. - Periodic removal of possible sediments accumulated on the deck (silt, sledges, slate granules, etc) by occasional water accumulation. - Periodic removal of debris and small objects that may have accumulated on the roof. - Ensure surrounding structural elements are sound such as eaves, flashings, slate tiles and brickwork. - Ensure that the waterproofing is in good condition and there are no blisters, damage or separation. - Review the condition of the waterproofing (adherence to upstands, condition of overlaps, visual appearance, etc) and repair the defects observed. These operations must be carried out twice a year, preferably at the beginning of spring or autumn and must be increased in case of decks or valleys with zero falls. It is also necessary to perform additional maintenance depending on the type of roof, location and proximity of roofs to areas with trees or in areas with high levels of pollution. More details on the document Maintenance and repair recommendations for flat roofs waterproofed with modified bitumen sheets

Warning

- Do not apply on icy or wet surfaces.

Handling, storage and preservation

- Before moving the pallet, the condition of the shrink-wrap is checked in order to reinforce it if necessary.
- The product must be stored in a dry place protected from rain, sun, heat and low temperatures.
- The product will be stored in an upright position.
- Handle with a crane with a protective net.
- Pallets shall not be stacked on top of each other.

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, consult the DANOSA Technical Service before using the DANOSA products. The information contained herein does not exonerate the responsibility of the building agents to test the products for the application and intended use, as well as their correct application in accordance with current legal regulations. The product images used in our communications are indicative and may differ slightly in color and aesthetic appearance in relation to the final product.Orders are accepted in accordance with the terms of our current General Sales Conditions.DANOSA reserves the right to modify, without prior notice, the data reflected in this documentation.Website: **www.danosa.com** E-mail: **info@danosa.com** Telephone: **+34 949 88 82 10**