ESTERDAN 50/GP POL

Tough APP plastomeric 5 kg/m² capsheet. Torch applied.

ESTERDAN 50/GP POL is a waterproofing bituminous sheet with self-protected surface of 5 kg/m². Composed of a reinforced polyester felt reinforcement, covered on both sides with polymer modified bitumen mastic. On the upper side of the sheet, mineral protection 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 (Overlap)
- Product code: 141984

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)	120 ±10	UN-EN 1110
Longitudinal traction durability (N / 5cm)	700 ± 200	-
Transversal tensile durability (N/5cm)	450 ± 150	-
Elongation at break longitudinal (%)	45 ±15	UNE-EN 12311-1

Concept	Value	Standard
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
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	EN 13984
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)	900	UNE-EN 12691
Resistance to impact, B (mm)	1000	-
Joint Strength: Welding Shear	450 ± 150	UNE-EN 12317-1
Hazardous substances	NPD	-
Resistance to root penetration	No pasa	EN 13984

Addtitional Technical Data

Concept	Value	Standard
Density (kg/m³)	1428	-
Adhesion of granules (%)	<30	UNE-EN 12039
Dimensional stability at elevated temperatures (longitudinal) (%)	<0.5	UNE-EN 1107-1
Dimensional stability at high temperatures (transversal) (%)	<0.5	UNE-EN 1107-1
Creep resistance at high temperatures (ºC)	>130	UN-EN 1110

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

- In accordance with the UNE-EN 13707 standard ‘Flexible sheets for waterproofing - Reinforced bitumen sheets for roof waterproofing - Definitions and characteristics’.
- In accordance with the UNE-EN 13969 standard for ‘Flexible sheets for waterproofing - Bitumen damp proof sheets including bitumen basement tanking sheets - Definitions and characteristics’.
- Complies with CE marking requirements.
- 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. In addition, the mineral self-protection makes work on the roof easier and more convenient. In these cases, the sheet, in addition to adhering to the substrate, will be nailed to the substrate.
- Capsheet in multi-layer waterproofing systems.
- Capsheet in single-layer waterproofing systems.

Advantages & Benefits

- High movement capability.
- Good performance in nailed systems.
- Helps to increase the durability of the sheet.
- It retains its properties better over time.
- High dimensional stability.
- High tensile strength and high elongation at break.
- High resistance to tearing.
- High resistance to static and dynamic piercing.
- Rot-proof.
- The membrane, composed of a bitumen mastic modified with plastomers, provides great performance at high and low temperatures, plasticity 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

Preparation of the substrate:
-The surface of the base substrate must 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 (CURIDAN, IMPRIDAN100, MAXDAN or MAXDAN CAUCHO) must be applied beforehand. If the substrate is a weldable thermal insulation board, i.e. finished in asphalt (Rocdán A or Rocdán PIR VA), the primer is not necessary. The overlaps must 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 other 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.
- Sheets made of plastomeric bitumen require more blowtorch input than sheets made of SBS elastomeric bitumen in order to work properly. It is important to take this aspect into consideration when welding the sheets to the substrate, when welding the overlaps of the sheets and when welding the sheets to each other.
- There is no chemical incompatibility between the Danosa range of SBS elastomeric bitumen and APP plastomeric bitumen membranes.
- 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

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