

POLYDAN RADON 180-40 P ELAST.

High Performance SBS elastomeric
4 kg/m² underlay. Torch Applied.
Gas Barrier.



EPD[®]



EPD S-P-01493

POLYDAN RADON 180-40 P ELAST is a waterproofing sheet made of SBS modified bitumen mastic. Composed of a non-woven polyester felt reinforcement and covered on both sides with a polyethylene film. Tested according to the standards EN tests methods.

Presentation

- Length (cm): 1000
- Width (cm): 100
- Thickness (mm): 3.5
- Surface (m²): 10
- Product code: 141210

Technical Data

Concept	Value	Standard
Mass per unit area (nominal) (kg/m ²)	4	-
External fire behaviour	NPD	UNE-EN 1187; UNE-EN 13501-5
Durability flexibility	-5 ± 5	-
Creep durability (°C)	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 (°C)	<-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)	PND	UNE-EN 12310-1
Transversal resistance to tearing (nail shank) (N)	PND	UNE-EN 12310-1
Resistance to impact, A (mm)	>1000	UNE-EN 12691
Joint Strength: Welding Shear	650 ± 250	UNE-EN 12317-1
Hazardous substances	PND	-
Resistance to root penetration	No pasa	UNE-EN 13948

Additional Technical Data

Concept	Value	Standard
Adhesion of granules (%)	PND	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 (°C)	>100	UN-EN 1110

Environmental Information

Concept	Value	Standard
Radon diffusion coefficient (m ² / s)	2.4, Exp -12	ISO/DTS 11665-13
Volatile organic compounds (COV's) (µg/m ³)	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'.
- Complies with CE marking requirements.

Scope

- Underlay in multi-layer systems with mineral self-protection for waterproofing of railway decks.
- Radon gas barrier in slabs, sanitary slabs or walls.

Advantages & Benefits

- High resistance to static and dynamic piercing.
- Self-healing and rot-proof.
- High dimensional stability.
- 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.

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 flush with each other and without gaps of more than 0.5 cm between boards.

- Single-ply adhered system membrane, double-ply adhered system membrane bottom sheet with heavy-duty protection and double-ply self-protected membrane bottom sheet. The adhesion of the membrane to the substrate is carried out 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), no primer is required. The overlaps are to be welded, and shall be 8 cm in both longitudinal and transverse directions.
- Top sheet of two-layer waterproofing membranes with heavy protection. The sheet is laid in the same direction as the bottom sheet, shifting the overlap line 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 shall be 8 cm in both longitudinal and transverse directions.
- Single-ply unbonded or floating system membrane and bottom sheet two-ply unbonded or floating system membrane with heavy protection. In this case the membrane is only welded to the substrate at singular points (parapets, expansion joints, drains, etc.), where a bituminous primer (Curidán, Impridán 100, Maxdán or Maxdán Caucho) has been previously applied. Non-adherence to the substrate must be guaranteed and a separating layer (Danofelt PY 150 or Velo 100) may be necessary between the substrate and the waterproofing membrane. The overlaps must be welded, and shall be 8 cm in both longitudinal and transversal directions.

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.
- 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.
- 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'

Warning

- Do not apply on wet or frozen surfaces.

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.
- 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**