

PRODUCT TECHNICAL INFORMATION

ITA/AATEXP/328

Rév. 05 – 15.01.08

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TERANAP 431 TP - 2 m wide
Elastomeric bitumen geomembrane

DESCRIPTION

TERANAP 431 TP is a large width waterproofing geomembrane with SBS elastomeric bitumen for civil engineering and tanking applications. It is manufactured with a special blend and a special reinforcement to resist to chemical aggressions and to high sea water pressure. This allow the membrane to have superior physical properties (see characteristics table).



SCOPE OF APPLICATION

High performance reinforced waterproofing geomembrane manufactured with SBS elastomeric bitumen.

This product is used for :

- Tanking systems (basements, tunnels, ...).
- hydraulic jobs (ie : dams, canals, irrigation jobs, fish breeding basins, entertainment basins, fire protection reservoirs, drinkable water storage (closed tanks, watertanks, etc..)).
- environmental protection sites (i.e : road, industrial or agriculture basins, sewage (cleaning, decanting, spreading sites) technical burying centers, refuse dumps coverings).

COMPOSITION AND NOMINAL CHARACTERISTICS

Upperface	Sanded
Blend	Filerized (Styrene-Butadiene-Styrene) elastomeric bitumen
Reinforcement	Non-woven polyester
Underface	Root resistant polyester film
Selvedge underface	Siliconised release film
Thickness at the selvedge (mm)	4
Nominal thickness at the main area (mm)	4
Minimal thickness at the main area (mm)	3,8
Selvedge width (+/- 10mm)	150
Weight/Sqm (kg)	5

CARACTERISTICS

	Unit	Standard	TERANAP 431 TP - 2m
			Nominal value
Thickness	mm	NF EN 1848-1	4
Longitudinal overlap width	mm	NF EN 1848-1	150
Mass per unit area	g/m ²	NF EN 1849-1	5000
Strength at break (MD x CMD) ¹	N/5cm	NF EN 12311-1	1000 x 700 (- 20%)
Elongation at break	%		40 x 50 (- 20%)
Static puncture:			
- Force	kN	NF EN ISO 12236	2.60
- Displacement	mm		45
Cold temperature flexibility	°C	NF EN 1109	- 20
Flow resistance	°C	NF EN 1110	100
Dimensional stability	%	NF EN 1107-1	- 0,5
Water tightness	m ³ /m ² /j	prEN 14150	≤ 1.10 ⁻⁸
Gas tightness	m ³ /m ² /j	ASTM D 1434-82	≤ 27.6.10 ⁻⁶
Nail tearing resistance	N	NF EN ISO 12310-1	200*220
Resistance to hydrostatic pressure	Mpa	CEMAGREF test	0,7
Resistance to oxidation		NF EN 14575	Conformable
Resistance to weathering ²		NF EN 12224	No loss in tensile properties

¹ MD: Machine Direction; CMD: Cross Direction

² Test-conditions: 5 hours UV cycle at 50 °C followed by 1 hour condensation at 20 °C; Total: 3000 hours.

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PACKAGING

	Length	Width	Nominal weight/roll	Roll diameter	Rolls number / truck pallet	Weight/truck pallet
TERANAP 431 TP - 2 m	20 m	2 m	210 kg	350 mm	6	1260 kg

- Products are rolled up with a plastic intercalated film (anti-adherent).
- Each roll wears a data sheet indicating the trademark, the product name and the serial number.
- The Product is piled up on a specific pallet (prismatic volume) or set up vertically in a wooden box during transport.
- For handling and storage facilities, rolls are equipped with cardboard mandrels of 2 m long and internal diameter of 70 mm (+/- 0.5).
- This product is not classified as dangerous according to the international regulation of transport.
- Customs tariff number : 680710100000A
- Roll quantity per wooden box : 9

GENERALITIES ABOUT APPLICATION

This product is a part of a waterproofing and draining system using geosynthetic or geomembrane. Generally, the product rolling is carried out to have the polyester film in contact with the deck when directly unrolled (film face exterior of the roll). The overlappings are welded with a propane gas torch and roll pressed. The longitudinal overlaps are torched on 150mm edge mini when unrolling or on 200mm mini for hidden welding. The endlaps are torched on 200mm edge mini. This product must be applied in accordance with the relevant technical specifications.

For tanking applications, the longitudinal overlaps are torched on 100mm edge mini and the endlaps are torched on 150mm edge mini. All the overlaps receive an additional cover strip of PARAFOR M3S of 200mm width.

NOTE

- 1) Where 2 values for given characteristics are shown, the first is for the longitudinal direction and the second is for the cross direction.
- 2) Average values comply to UEAtc standard project (prEN WI 002254041). The manufacturing tolerances comply to UEAtc standards.
- 3) The information about purpose and methods of application of the product does not prevail against local regulations and practices. In case of doubt, do not hesitate to contact the Siplast's Technical Department.
- 4) Siplast reserves the right to change its composition as a result of technical and experimental improvements. This product data sheet supersedes any previous edition, to obtain the up-dated technical data sheet, please contact the Siplast's Technical Department.
- 5) This document is only a product technical data sheet. For each waterproofing design, please, consult the related technical agreement and in case of doubt contact the Siplast's Technical Department.

Our company reserves the right to modify products composition as a result of technologic improvements. This product data sheet supersedes the previous edition. To obtain the updated technical data sheet, please contact our technical department.

This product is not classified as dangerous according to the international regulation (ADR, RID, IATA, RTMDR).