

TERANAP 431 TP 2 m

PRODUCT DESCRIPTION AND USES

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).

High performance reinforced waterproofing geomembrane manufactured with SBS elastomeric bitumen. This product is used for:

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

COMPOSITION

Surface	Sanded
Selvedge under face	Siliconized release film
Blend	Filerized (Styrene-Butadiene-Styrene) elastomeric bitumen
Reinforcement	Nonwoven polyester 250 g/m ²
Under face	Polyester film

DIMENSIONAL CHARACTERISTICS

	90 m		20 m		10 m	
	Nominal value	Critical value	Nominal value	Critical value	Nominal value	Critical value
Length x Width (m)	90.0 x 2.00	89.1 x 1.98	20.0 x 2.00	19.8 x 1.98	10.0 x 2.00	9.8 x 1.98
Selvedge nominal thickness (mm)	4.0	3.8	4.0	3.8	4.0	3.8
Thickness (mm)	4.0	3.8	4.0	3.8	4.0	3.8
Longitudinal selvedge nominal width (mm)	150	140	150	140	150	140
Area density (kg/m ²)	4.800	4.560	4.800	4.560	4.800	4.560
Mass per roll (kg)	915.3	869.5	198.3	188.4	101.0	96.0

PERFORMANCES

Test	Standard	Unit	Average value	Critical value
Tensile strength	NF EN 12311-1	N/50mm	1100 x 1000	1000 x 900
	ASTMD 7275	kN/m	23 x 20	21 x 18
Elongation	NF EN 12311-1	%	49 x 53	42 x 45
	ASTMD 7275	%	45 x 48	35 x 40
Static puncture force	NF EN ISO 12236	kN	3,2	3,0
Static puncture displacement		mm	47	45
Cold temperature flexibility	NF EN 1109	°C	-20	-15
	ASTMD 5147	°C	-25	-20
Heat flow resistance	NF EN 1110	°C	100	100
Nail tearing resistance	NF EN ISO 12310-1	N		220 x 240
	ASTMD 5884	N	60 x 65	51 x 55
Water tightness	EN 14150	m ³ /(m ² .j)	< 1E-6	
Gas tightness	ASTMD 1434	m ³ /(m ² .j)	27.6E-6	
Dimensional stability	EN 1107-1	%	-0,5	
Oxidation resistance	EN 14575	-	Pass	
Resistance to weathering ¹	EN 12224	-	No loss in tensile properties	
Resistance to hydrostatic pressure	CEMAGREF test	bar	7	

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

ISO 9001 REFERENCE DOCUMENT



Our products are manufactured by certified ISO 9001 plants

PACKAGING

	90 m	20 m	10 m
Rolls quantity per truck pallet		6	10
Rolls quantity per container pallet			
Rolls quantity per wooden box		9	

- 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

GENERALITIES ABOUT APPLICATION

Using	The generalities about the product using are set out in the ZSA STANDARD
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).
Overlaps	The overlappings are welded with a propane gas torch and roll pressed. The longitudinal overlaps are torched on 150 mm edge mini when unrolling or on 200 mm mini for hidden welding. The endlaps are torched on 200 mm edge mini. This product must be applied in accordance with the relevant technical specifications. For tanking applications, the longitudinal overlaps are torched on 100 mm edge mini and the endlaps are torched on 150 mm edge mini. All the overlaps receive an additional cover strip of PARAFOR M3S of 200 mm width.
Slopes	Current building practices concerning slopes are set out in the ZPA STANDARD

COMPLEMENTARY INFORMATIONS

Values	Where 2 values for given characteristics are shown, the first is for longitudinal direction and the second is for the cross direction.
Tolerances	The average values derived from standard tests and are subject to the usual production variations. Some slight variations can be noticed as the values are based on the average values obtained from several plants.
Modification(s)	Our company reserves the right to modify its composition as a result of technologic and experiments improvements. This product data sheet supersedes the previous edition, to obtain the up-date technical data sheet, please contact our technical department
Hazardous classification	It is not classified as dangerous according to the international regulation (ADR, RID, IATA, and RTMDR)
Complementary information	This product is only a product technical data sheet, regarding each waterproofing design, please, consult the concerned technical agreement and in case of doubt contact our technical department.
Storage	This product is packaged in rolls set up vertically on pallet or wooden box. It must be stored vertically under shelter, away from heat sources.