

TERANAP 431 TP 4m TERANAP 431 TP 4m Control

PRODUCT DESCRIPTION AND USES

TERANAP 431 TP is a large width geomembrane made of SBS modified bitumen for environmental protection (tailing, industrial waste containment ponds, industrial waste water basins ...) and hydraulic applications (dams, canals, irrigation works...).

It is manufactured with a special blend and a special reinforcement that provide waterproofing, chemical resistance, ageing behaviour and resistance to high mechanical stresses.

This allows the membrane to have superior physical properties (see characteristics table).

Teranap 431 TP 4m is available with or without the Control Technology.

Standard length is 90m. Please contact BMI Siplast directly if you need different length.

COMPOSITION

Surface	Sand
Reinforcement	Nonwoven polyester + glass mat
Compound	SBS elastomer bitumen
Under face	Fusible film

DIMENSIONAL CHARACTERISTICS

	Average value	Minimum Value
Thickness (mm)	4.1	3.9
Length (m)	90	89.1
Width (m)	4	3.96
Area density (kg/m ²)	4.85	4.49
Mass of a roll (kg)	1861	1723

PERFORMANCES

	Standard	Unit	Values		
			Average	Minimum	
Tensile strength	MD	ASTM D 7275	kN/m	29	24
	CMD			21	18
Elongation	MD	ASTM D 7275	%	55	47
	CMD			60	51
Tensile-tear strength	MD	ASTM D 4073	N	940	850
	CMD			750	650
Static puncture resistance	ASTM D 4833	N	550	467	
Cold temperature flexibility	ASTM D 5147	°C	-25	-20	
Water tightness	ASTM E 96	m/s	6E-14		
Gas tightness	ASTM D 1434	m ³ /(m ² .j)	38.6E-6		

CMD : Cross Machine Direction ; MD : Machine Direction

PACKAGING

- Products are rolled up with a plastic intercalated film.
- Each roll wears a data sheet indicating the trademark, the product name and the serial number.
- Rolls are piled up (prismatic volume) during transport.
- Rolls are equipped with metallic mandrels of 4.8 m long and internal diameter of 159 ± 0.5 mm.
- TERANAP 431 TP is not classified as dangerous according to the international regulation of transport.

GENERALITIES ABOUT APPLICATION

- Due to the flexibility (viscoelastic behaviour) of SBS modified bitumen, TERANAP 431 TP will easily take the shape of the soil profile.
- Its low thermal expansion coefficient allows keeping TERANAP 431 TP flattened on the soil profile.
- Manual torching with gas burner.
- Easy to anchor and connect.

Using	The generalities about the product using are set out in the ZSA STANDARD
Application	The generalities about the product application are set out in the ZTA STANDARD
Overlaps	Current building practices concerning overlaps are set out in the ZRA STANDARD
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.