

**PRODUCT TECHNICAL INFORMATION**

ITA/AATEXP/328

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**TERANAP 431 TP GTX**  
Elastomeric bitumen geomembrane



**DESCRIPTION**

**TERANAP 431 TP GTX** is a large width waterproofing geomembrane with SBS elastomeric bitumen.

The geomembrane is surfaced with a removable non woven polyester geotextile.

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).

**TERANAP 431 TP GTX** features a non woven polyester geotextile (400g/m<sup>2</sup>) on it surface.

Such surface will protect the product from mechanical damages (puncturing effect of heavy protection, tools, workers application, ...).

The specific interface positionned between the bituminous part and the geotextile allows to remove easily the geotextile in stripes (cut and pull).

Once removed the stripes will leave space for applying the waterstops for partitioning.

**TERANAP 431 TP GTX** is a unique and high tech product, combining the high performance geomembrane (TERANAP 431 TP) and the mechanical properties of non woven geotextile.

**TERANAP 431 TP GTX** is the solution for saving labor cost and securing the TERANAP tanking system.

**SCOPE OF APPLICATION**

This product has specially been developed for :

- Tanking systems (basements, tunnels, ...).
  - o Horizontal and vertical applications.

**COMPOSITION AND NOMINAL CHARACTERISTICS**

Upperface	Non woven geotextile 400g/m <sup>2</sup>
Blend	Filerized (Styrene-Butadiene-Styrene) elastomeric bitumen
Reinforcement	Non-woven polyester 250g/m <sup>2</sup>
Underface	Root resistant polyester film
Selvedge underface	Siliconised release film
Thickness at the selvedge (mm)	4
Nominal thickness at the main area (mm)	5.3
Selvedge width (+/- 10mm)	150
Weight/Sqm (kg)	5.40

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**CARACTERISTICS**

	Unit	European Standards	TERANAP 431 TP GTX
			Nominal value*
Thickness	mm	NF EN 1848-1	5.3
Longitudinal overlap width	mm	NF EN 1848-1	150
Mass per unit area	g/m <sup>2</sup>	NF EN 1849-1	5400
Strength at break (MD x CMD) <sup>1</sup>	N/5cm	NF EN 12311-1	1200 x 1000
Elongation at break	%		40 x 50
Static puncture:		NF EN ISO 12236	
- Force	kN		4.50
- Displacement	mm	55	
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 <sup>3</sup> /m <sup>2</sup> /j	prEN 14150	≤ 1.10 <sup>-8</sup>
Gas tightness	m <sup>3</sup> /m <sup>2</sup> /j	ASTM D 1434-82	≤ 27.6.10 <sup>-6</sup>
Nail tearing resistance	N	NF EN ISO 12310-1	200*220
Resistance to oxidation		NF EN 14575	Conformable
Resistance to weathering <sup>2</sup>		NF EN 12224	No loss in tensile properties
Resistance to hydrostatic pressure	bar	CEMAGREF test	7

<sup>1</sup> MD: Machine Direction; CMD: Cross Direction

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

\* with tolerances in accordance with UEAtc regulations.

**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 100mm edge mini. 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 (geotextile needs to be removed).

All the overlaps receive an additional cover strip of PARAFOR M3S of 200mm width (welded with cool flame to not damage the geotextile).

To remove the geotextile, first unstick it on the top of the roll, then cut it with a cutter from top to bottom (on each side) and pull it.

**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.