MAPEPLAN TU S

Synthetic waterproofing membrane



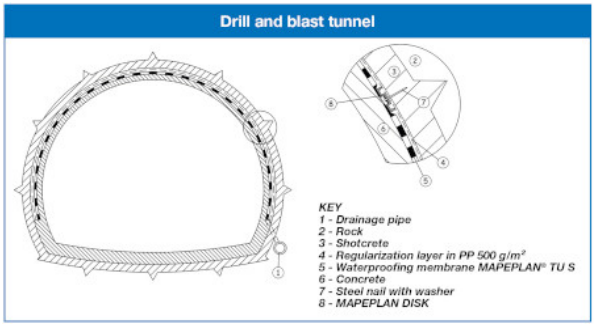
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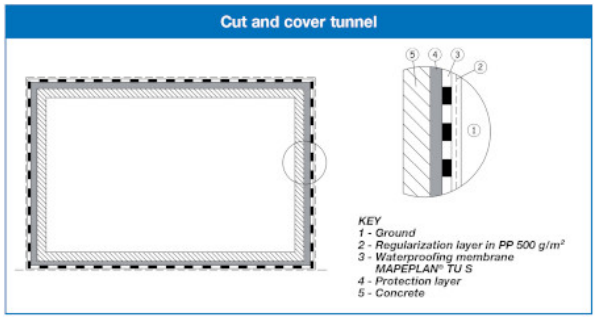
DESCRIPTION

Mapeplan TU S is a PVC-P synthetic waterproofing membrane.
Mapeplan TU S is a single layer membrane with orange signal layer; it can be applied as a fluid barrier in tunnel and underground structures waterproofing works.

WHERE TO USE

- Drill and blast tunnel waterproofing.
- Open cut tunnel waterproofing.
- Underground structures waterproofing.





TECHNICAL CHARACTERISTICS

Mapeplan TU S, thanks to the special formulation achieved at MAPEI SpA laboratories, can meet different waterproofing requirements and the presence of the two-colour signal layer (orange/black) allows to highlight any holes or tearing of the membrane during the placing phase.
Mapeplan TU S, thanks to the high quality production standards, performes both high mechanical properties and workability, as well as welding characteristics.

- Signal layer (orange/black).
- High workability and good welding characteristic.
- High mechanical strength.

- High resistance to permanent pressure.
- High resistance to root action.
- High resistance to low temperature.
- High resistance to stray currents.
- High explosion resistance.

PACKAGING

Mapeplan TU S is supplied in 20 m rolls. It is possible to supply a higher roll length upon request, depending on either the tunnel profile or the structure to be waterproofed.

STORAGE AND WASTE DISPOSAL

Mapeplan TU S is stable on ordinary working conditions. It is advised to store the product at the site in its original sealed packaging.
According to current norms regarding waste disposal, the product may be disposed of in an authorised waste tip, a recycling plant for plastics or an authorised thermo-reducing plant.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeplan TU S is an article and referring to the current European regulations (Reg. 1907/2006/EC - REACH) does not require the preparation of the Safety Data Sheet. During use, it is recommended to wear protective gloves and goggles and follow the safety requirements of the workplace.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY							
Raw material:	PVC-P						
Colour:	orange/black*						
	Mapeplan TU S 15	**Mapeplan TU S 20**	**Mapeplan TU S 21**	**Mapeplan TU S 22**	**Mapeplan TU S 25**	**Mapeplan TU S 30**	**Mapeplan TU S 31**
Dimensions:							
Thickness (EN 1849-2) (mm):	1.5 (-5/+10%)	2.0 (-5/+10%)	≥ 2.0	2.2 (-5/+10%)	2.5 (-5/+10%)	3.0 (-5/+10%)	≥ 3.0
Standard roll length (EN 1848-2) (m):	20 (-0/+5%)	20 (-0/+5%)	20 (-0/+5%)	20 (-0/+5%)	15 (-0/+5%)	15 (-0/+5%)	15 (-0/+5%)
Width (EN 1848-2) (m):	2.00/2.10 (-0.5/+1%)						
Mass per unit area (EN 1849-2) (g/m²):	2055 (-5/+10%)	2740 (-5/+10%)	2877 (-5/+10%)	3014 (-5/+10%)	3425 (-5/+10%)	4110 (-5/+10%)	4247 (-5/+10%)

TECHNICAL CHARACTERISTICS							
Tensile strength at break (EN ISO 527) (parts 1 and 3, test type 5, speed 100 mm/minute) (N/mm²):	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)	Long. 17 (± 2) Trasv. 17 (± 2)
Elongation at break (EN ISO 527) (parts 1 and 3, test type 5, speed 100 mm/minute) (%):	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300	Long. ≥ 300 Trasv. ≥ 300
Resistance to tearing (ISO 34) (B method - corner test type fig. 2, speed 50 mm/minute) (kN/m):	≥ 45	≥ 45	≥ 45	≥ 45	≥ 45	≥ 45	≥ 45
Puncture CBR test (EN ISO 12236) (kN):	2 (± 0.25)	2.5 (± 0.25)	2.5 (± 0.25)	2.7 (± 0.25)	3.0 (± 0.25)	3.4 (± 0.25)	3.4 (± 0.25)
Water permeability (EN 14150) (m³/m² day):	$< 10^{-6}$						
Cold bending (EN 495/5) (temp = -25°C):	no break or crack						
Microbiological resistance (variation of tensile strength and elongation at break) (EN 12225 and EN ISO 527 - 3/5/100) (%):	≤ 25						
Oxidation resistance (variation of tensile strength and elongation at break) (EN 14575 - EN ISO 527 - 3/5/100) (%):	≤ 25						
Resistance to action of root penetration (UNI CEN/TS 14416):	conform						
Fire reaction classification (according to EN 13501-1):	class E						

** Also available in grey/black colour*

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.
Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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