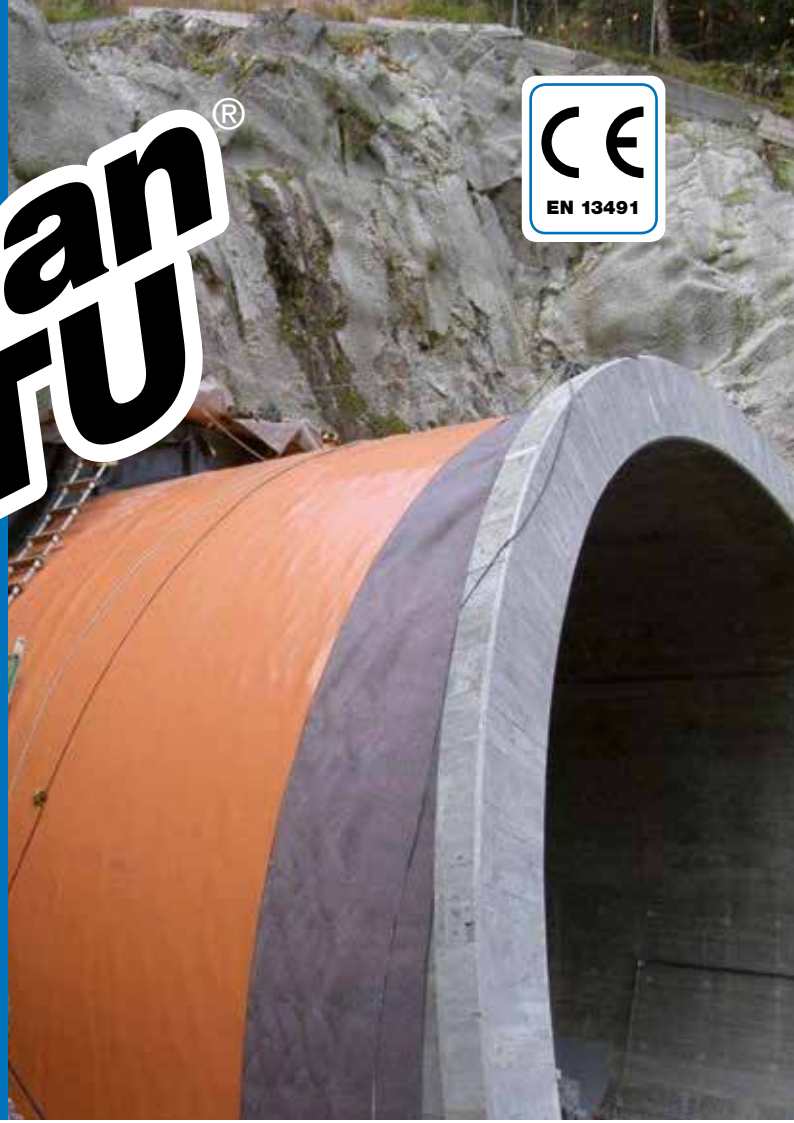


Mapeplan[®] TU

Synthetic waterproofing membrane



DESCRIPTION

Mapeplan TU is a PVC-P synthetic waterproofing membrane.

Mapeplan TU is a single layer membrane with orange signal layer; it can be applied as a fluid barrier in tunnel and underground structures construction.

WHERE TO USE

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

TECHNICAL CHARACTERISTICS

Mapeplan TU, due to the special formulation achieved at MAPEI SpA laboratories, can accomplish different waterproofing requirements and the presence of the two-color signal layer (orange/black) allows to highlight any holes or tearing of the membrane during the placing phase.

Mapeplan TU, due to the high standard production level, performs both good mechanical properties and workability and welding characteristics.

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

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

PACKAGING

Mapeplan TU 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

The product 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 authorized waste tip, a recycling plant for plastics or an authorised thermo-reducing plant.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeplan TU is an article and referring to the current European regulations (Reg. 1906/2007/CE - REACH) does not require the preparation of the material safety data sheet. During use it is

| TECHNICAL DATA (typical values) | | | | |
|---|----------------------|-------------------|-------------------|-------------------|
| PRODUCT IDENTITY | | | | |
| Raw material: | PVC-P | | | |
| Colour: | orange/black* | | | |
| | Mapeplan TU 15 | Mapeplan TU 20 | Mapeplan TU 25 | Mapeplan TU 30 |
| Dimensions: | | | | |
| Thickness (EN 1849-2) (mm): | 1.5 ± 5% | 2.0 ± 5% | 2.5 ± 5% | 3.0 ± 5% |
| Standard roll length (EN 1848-2) (m): | 20 (-0/+5%) | 20 (-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/m ²): | 2055 (-5/+10%) | 2740 (-5/+10%) | 3425 (-5/+10%) | 4110 (-5/+10%) |
| TECHNICAL CHARACTERISTICS | | | | |
| Tensile strength at break (ISO EN 527) (part 1 and 3, test type 5, speed 100 mm/minute) (N/mm ²): | 15 (± 2) | 15 (± 2) | 15 (± 2) | 15 (± 2) |
| Elongation at break (ISO EN 527) (part 1 and 3, test type 5, speed 100 mm/minute) (%): | 250 (± 10%) | 250 (± 10%) | 250 (± 10%) | 250 (± 10%) |
| Resistance to tearing (ISO 34) (B method - corner test picture 2, speed 500 mm/minute) (kN/m): | ≥ 45 | ≥ 45 | ≥ 45 | ≥ 45 |
| Puncture CBR test (EN ISO 12236) (kN): | 2 (± 0,25) | 2.3 (± 0,25) | 2.5 (± 0,25) | 3.0 (± 0,25) |
| Water permeability (EN 14150) (m ³ /m ² day): | < 10 ⁻⁷ | | | |
| Cold bending (EN 495/5) (temp = -25°C): | no break or crack | | | |
| Microbiological resistance (variation of tensile strength and elongation at break) (EN 12225 - ISO EN 527 - 3/5/100) (%): | ≤ 25 | | | |
| Oxidation resistance (variation of tensile strength and elongation at break) (EN 14575 - ISO EN 527 - 3/5/100) (%): | ≤ 25 | | | |
| Root penetration resistance (CEN/TS 14416): | conform | | | |
| Fire reaction classification (EN 13501-1): | class E | | | |

* Also available in off-white/black colour

recommended to wear gloves and goggles and follow the safety requirements of the workplace.

PRODUCT FOR PROFESSIONAL USE.

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.

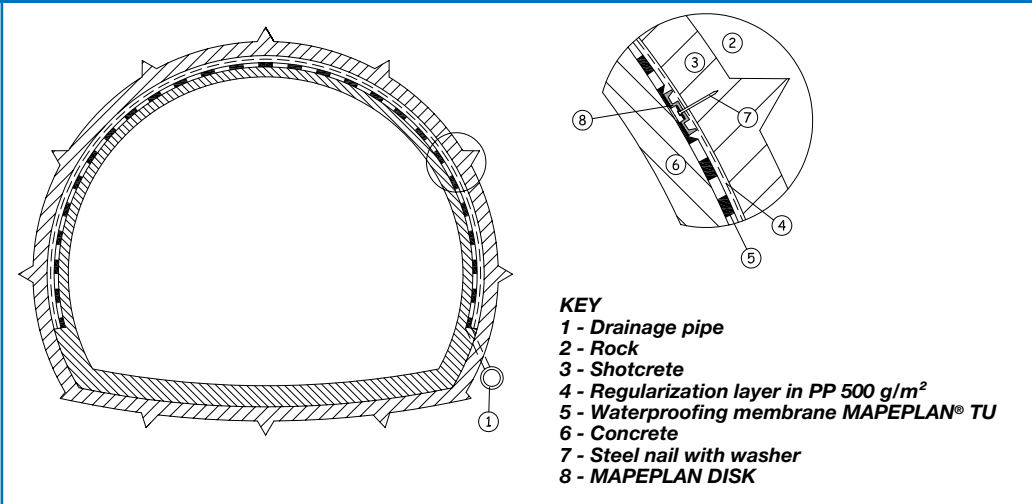
Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

LEGAL NOTICE

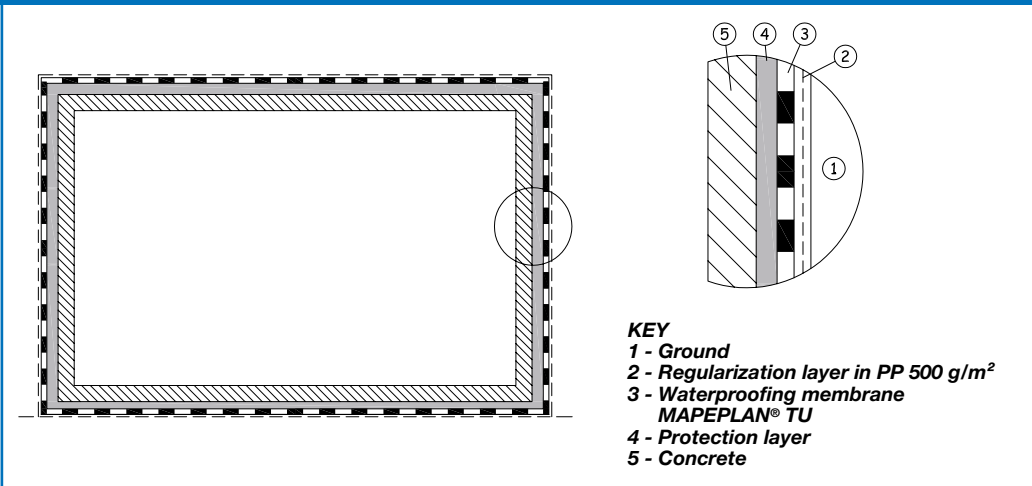
The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.

All relevant references for the product are available upon request and from www.mapei.com

Drill and blast tunnel



Cut and cover tunnel



Mapeplan[®]
TU



www.utt-mapei.com

The products of the MAPEPLAN range are produced by:



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