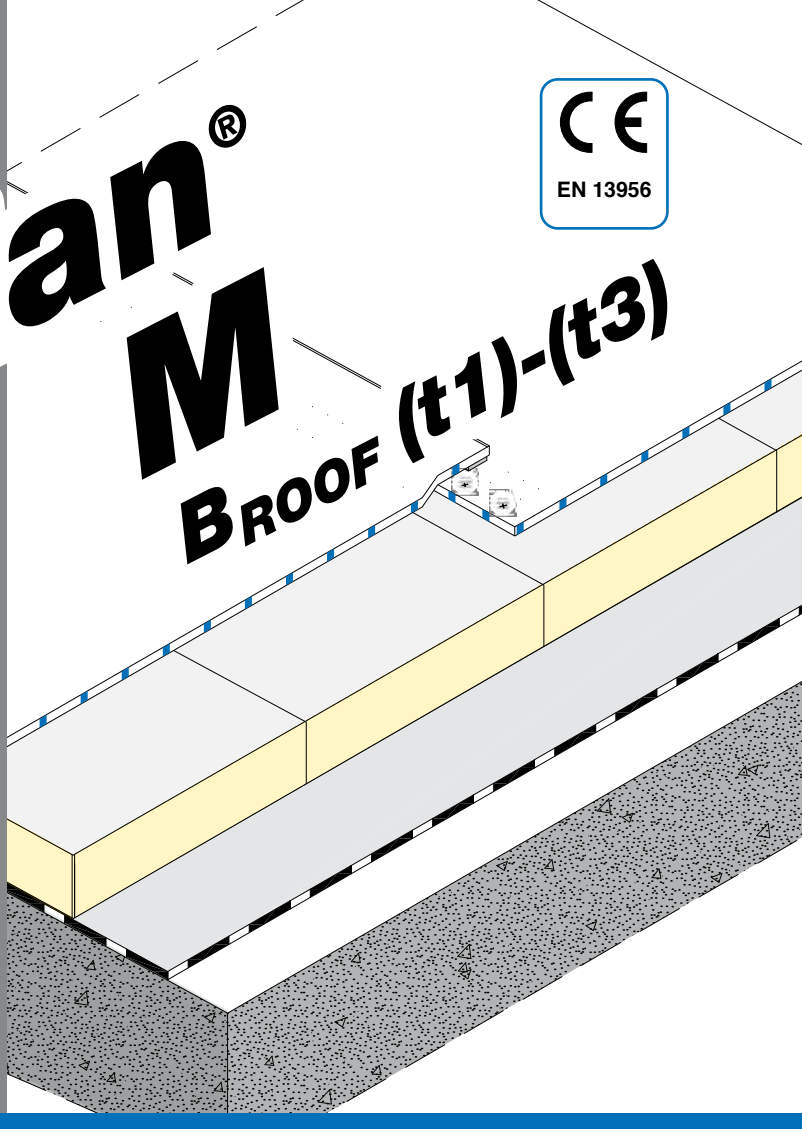
# Mapeplan® M BROOF (t1)-(t3)

CE
EN 13956



## Roofing and waterproofing synthetic membrane

### DESCRIPTION
**Mapeplan® M BROOF (t1)-(t3)** is a synthetic roofing waterproofing membrane in PVC-P produced in one **multiextrusion coating process**, with high quality raw materials, reinforced with polyester net.
**Mapeplan® M BROOF (t1)-(t3)** is conform to EN 13956 standard.

### APPLICATION FIELDS
**Mapeplan® M BROOF (t1)-(t3)** is suitable for exposed roof installations and for mechanical fixing.
It is resistant to ultraviolet rays and may be exposed to all weather conditions.

### NORMS AND CERTIFICATIONS
CE conformity marking according to EN 13956 standard.
ISO 9001 quality system certification.
ISO 14001 environmental system certification.
**Mapeplan® M BROOF (t1)-(t3))** can contribute in the collection of LEED (Leadership in Energy and Environmental Design) Credits.

FM APPROVED

### TECHNICAL CHARACTERISTICS
**Mapeplan® M BROOF (t1)-(t3)** is a high standard quality product; it performs very good mechanical properties, best workability as well as excellent welding characteristics.

- High workability and weldability
- High mechanical resistance
- Excellent flexibility at low temperatures
- Excellent resistance to ageing
- Excellent resistance to UV rays and to weathering
- High vapour permeability

### PACKAGING

| | |
|---|---|
| **PALLET** | 14 rolls per pallet |
| **LENGTH OF ROLLS** | 20 m 15 m (according to the thickness) |
| **WIDTH OF ROLLS** | 2,10 m 1,60 m 1,05 m |

### STORAGE
Store horizontally, shelter from sun and bad weather in a dry place.

### SAFETY INSTRUCTION
**Mapeplan® M BROOF (t1)-(t3)** is not considered dangerous according to the current safety regulation for the classification of goods and substances.
The safety datasheet is therefore not compulsory for the purchase, transport and application.
Precaution during use: ensure a proper change of air if the application is made in closed working environments.

Mapeplan® M
BROOF (t1)-(t3)

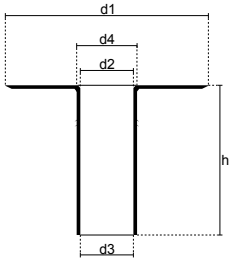
## TECHNICAL DATA

## PRODUCT PROPERTIES

| | | | | |
|---|---|---|---|---|
| Product | | Waterproofing membrane in PVC-P, reinforced with polyester net | | |
| Colour | | Top layer: light grey<br>Bottom layer: dark grey | | |
| European standard | | EN 13956 | | |
| **CHARACTERISTICS STANDARDS - M.U.** | | **Mapeplan® M 15 BROOF (t1)-(t3)** | **Mapeplan® M 18 BROOF (t1)-(t3)** | **Mapeplan® M 20 BROOF (t1)-(t3)** |
| Visible defects | EN 1850-2 | None | None | None |
| Length (m) | EN 1848-2 | 20 (-0/+5%) | 15 (-0/+5%) | 15 (-0/+5%) |
| Width (m) | EN 1848-2 | 2,10/1,60/1,05 (-0,5/+1%) | 2,10/1,60/1,05 (-0,5/+1%) | 2,10/1,60/1,05 (-0,5/+1%) |
| Straightness (mm) | EN 1848-2 | ≤30 | ≤30 | ≤30 |
| Flatness (mm) | EN 1848-2 | ≤10 | ≤10 | ≤10 |
| Mass per unit (kg/m²) | EN 1849-2 | 1,8 (-5/+10%) | 2,2 (-5/+10%) | 2,5 (-5/+10%) |
| Effective thickness (mm) | EN 1849-2 | 1,5 (-5/+10%) | 1,8 (-5/+10%) | 2,0 (-5/+10%) |
| **TECHNICAL CHARACTERISTICS** | | **Mapeplan® M 15 BROOF (t1)-(t3)** | **Mapeplan® M 18 BROOF (t1)-(t3)** | **Mapeplan® M 20 BROOF (t1)-(t3)** |
| Watertightness EN 1928 B Method | | Watertight | Watertight | Watertight |
| Reaction to fire EN 13501-1 | | Class E | Class E | Class E |
| Joint peel resistance EN 12316-2 (N/50 mm) | | ≥300 | ≥300 | ≥300 |
| Joint shear resistance EN 12317-2 (N/50 mm) | | ≥650 | ≥650 | ≥650 |
| Vapour diffusion resistance EN 1931 ($\mu$) | | 19000 | 19000 | 19000 |
| Hail resistance<br>- rigid support<br>- flexible support<br>EN 13583 (m/s) | | ≥20<br>≥30 | ≥20<br>≥33 | ≥20<br>≥36 |
| Tensile strength EN 12311-2 (N/50 mm) | | ≥1100 | ≥1100 | ≥1100 |
| Elongation EN 12311-2 (%) | | ≥15 | ≥15 | ≥15 |
| Resistance to impact<br>- rigid support (A method)<br>- flexible support (B method)<br>EN 12691 (mm) | | ≥500<br>≥1100 | ≥600<br>≥1500 | ≥700<br>≥1750 |
| Resistance to static load<br>- flexible support (A method)<br>- rigid support (B method)<br>EN 12730 (kg) | | ≥25<br>≥25 | ≥30<br>≥25 | ≥30<br>≥25 |
| Tear resistance EN 12310-2 (N) | | ≥200 | ≥200 | ≥200 |
| Dimensional stability EN 1107-2 (%) | | ≤0,5 | ≤0,5 | ≤0,5 |
| Foldability at low temperatures EN 495-5 (°C) | | ≤-25 | ≤-25 | ≤-25 |
| UV exposure EN 1297 (5000 h) | | grade 0 - passes | grade 0 - passes | grade 0 - passes |
| External fire performance Broof (t1) (t3) ENV 1187 | | $B_{ROOF}$ (t1)-(t3) | $B_{ROOF}$ (t1)-(t3) | $B_{ROOF}$ (t1)-(t3) |

## MAPEPLAN® ACCESSORIES

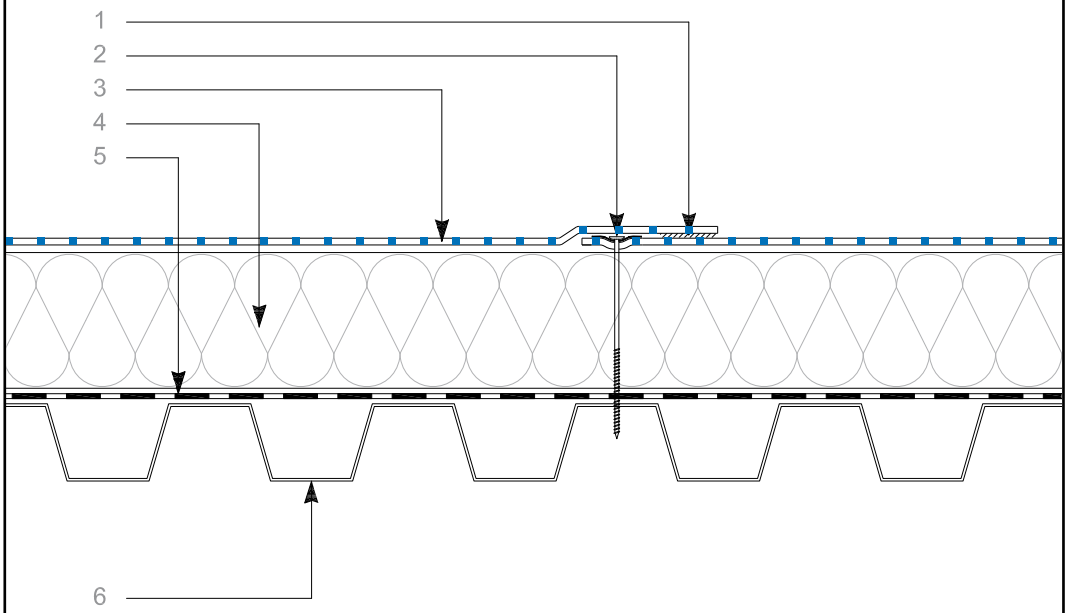
- **Mapeplan® D,** membrane for details and particulars
- **Mapeplan®,** metal sheets coupled to **Mapeplan®** membrane
- **Mapeplan®,** internal and external prefabricated corners
- **Mapeplan® ADS 200,** contact adhesives
- **Mapelan® Cleaner**, cleaning liquid
- **Mapeplan®,** outlets and special prefabricated pieces



OUTLET

Considering the various situations of use, the numerous types of support surfaces and the possibilities for use inside COMPLEX WATERPROOF LAYERING, Polyglass SpA cannot assume any liability for damages derived from the products results in terms of function or aesthetics.

## STRATIGRAFIA MAPEPLAN® M $B_{ROOF}$ (t1)-(t3)




- *Resistant to ageing processes*
- *Flexible at low temperatures*
- *Puncture resistant*
- *Hail resistant*
- *UV-resistant*
- *High workability and weldability*
- *Vapour permeable*
- *Dimensionally stable*
- *Excellent fire behaviour*

Technical specifications of product are available on the technical books.
References for this product are available on request and on Mapei and polyglass web sites at the following addresses www.mapei.it, www.mapei.com and www.polyglass.com

*LEGEND*
1. *Overlap/Hot air welding*
2. *Mechanical fixing system*
3. *MAPEPLAN® M $B_{ROOF}$ (t1)-(t3), roofing membrane*
4. *Thermal insulation (mechanically fixed)**
5. *Vapour control layer (for example Mapeplan® VB PE)*
6. *Substrate*

** Schedule a separation layer, if required*

Mapeplan® M

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50093 - 09/21

We reserve the right to change at any time, without prior notice, all items necessary to improve the products.

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MAPEI®

**www.mapei.com**

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