Roofing and waterproofing synthetic membrane

DESCRIPTION
Mapeplan® T Af is a synthetic roofing waterproofing membrane in flexible polyolefin FPO produced in one multi-extrusion coating process, with high quality raw materials, reinforced with glass mat, fleece backed with 200gr/m² woven-non-woven polyester. Mapeplan® T Af is conform to EN 13956 standard.

APPLICATION FIELDS
Mapeplan® T Af is suitable for use with adhered system for exposed roof installations. It is resistant to ultraviolet rays and may be exposed to all weather conditions. Suitable for application also on non-compatible surfaces.

NORMS AND CERTIFICATIONS
CE conformity marking according to EN 13956 standard.
ISO 9001 quality system certification.
ISO 14001 environmental system certification.
BBA Agrément Certification.
Mapeplan® T Af can contribute in the collection of LEED (Leadership in Energy and Environmental Design) Credits.

TECHNICAL CHARACTERISTICS
Mapeplan® T Af is a high standard quality product; it performs very good mechanical properties, best workability as well as excellent welding characteristics.

- High solar reflectance
- High workability and weldability
- High mechanical resistance
- Excellent flexibility at low temperatures
- Excellent resistance to ageing
- Excellent resistance to UV rays and to weathering
- Vapour permeability
- Formulation without plasticizers

PACKAGING

<table>
<thead>
<tr>
<th>PACKAGING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PALLETT</td>
<td>14 rolls per pallet</td>
</tr>
<tr>
<td>LENGTH OF ROLLS</td>
<td>20 m 15 m (according to the thickness)</td>
</tr>
<tr>
<td>WIDTH OF ROLLS</td>
<td>2,10 m</td>
</tr>
</tbody>
</table>

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

SAFETY INSTRUCTION
Mapeplan® T Af 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.
## TECHNICAL DATA

### PRODUCT PROPERTIES

<table>
<thead>
<tr>
<th>Product</th>
<th>Waterproofing membrane in FPO (flexible polyolefin), reinforced with glass mat, fleece backed with 200 g/m² woven-non-woven polyester.</th>
</tr>
</thead>
</table>
| Colour  | Top layer: high reflectance Smart White*<sup>1</sup>  
Bottom layer: black |
| European standard | EN 13956 |

### CHARACTERISTICS STANDARDS - M.U.

<table>
<thead>
<tr>
<th>Visible defects</th>
<th>EN 1850-2</th>
<th>Mapeplan® T Af 15</th>
<th>Mapeplan® T Af 18</th>
<th>Mapeplan® T Af 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (m)</td>
<td>EN 1848-2</td>
<td>20 (-0/+5%)</td>
<td>15 (-0/+5%)</td>
<td>15 (-0/+5%)</td>
</tr>
<tr>
<td>Width (m)</td>
<td>EN 1848-2</td>
<td>2,10 (-0,5/+1%)</td>
<td>2,10 (-0,5/+1%)</td>
<td>2,10 (-0,5/+1%)</td>
</tr>
<tr>
<td>Straightness (mm)</td>
<td>EN 1848-2</td>
<td>≤ 30</td>
<td>≤ 30</td>
<td>≤ 30</td>
</tr>
<tr>
<td>Flatness (mm)</td>
<td>EN 1848-2</td>
<td>≤ 10</td>
<td>≤ 10</td>
<td>≤ 10</td>
</tr>
<tr>
<td>Mass per unit area (kg/m²)</td>
<td>EN 1849-2</td>
<td>1,7 (-5/+10%)</td>
<td>2,0 (-5/+10%)</td>
<td>2,2 (-5/+10%)</td>
</tr>
<tr>
<td>Effective thickness (mm)</td>
<td>EN 1849-2</td>
<td>1,5 (-5/+10%)</td>
<td>1,8 (-5/+10%)</td>
<td>2,0 (-5/+10%)</td>
</tr>
</tbody>
</table>

### TECHNICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Watertightness</th>
<th>EN 1928 Method B</th>
<th>Mapeplan® T Af 15</th>
<th>Mapeplan® T Af 18</th>
<th>Mapeplan® T Af 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction to fire</td>
<td>EN 13501-1</td>
<td>Watertight</td>
<td>Watertight</td>
<td>Watertight</td>
</tr>
<tr>
<td>Joint peel resistance</td>
<td>EN 12316-2 (N/50 mm)</td>
<td>≥ 300</td>
<td>≥ 300</td>
<td>≥ 300</td>
</tr>
<tr>
<td>Joint shear resistance</td>
<td>EN 12317-2 (N/50 mm)</td>
<td>≥ 500</td>
<td>≥ 500</td>
<td>≥ 500</td>
</tr>
<tr>
<td>Vapour diffusion resistance</td>
<td>EN 1931 (µ)</td>
<td>150000</td>
<td>150000</td>
<td>150000</td>
</tr>
<tr>
<td>Hall resistance</td>
<td>EN 13583 (m/s)</td>
<td>≥ 22</td>
<td>≥ 26</td>
<td>≥ 28</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>EN 12311-2 (N/50 mm)</td>
<td>≥ 600</td>
<td>≥ 700</td>
<td>≥ 800</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>EN 12311-2 (%)</td>
<td>≥ 65</td>
<td>≥ 65</td>
<td>≥ 65</td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>EN 12691 (mm)</td>
<td>≥ 600</td>
<td>≥ 700</td>
<td>≥ 800</td>
</tr>
<tr>
<td>Resistance to static load</td>
<td>EN 12730 (kg)</td>
<td>≥ 15</td>
<td>≥ 15</td>
<td>≥ 15</td>
</tr>
<tr>
<td>Tear resistance</td>
<td>EN 12310-2 (N)</td>
<td>≥ 200</td>
<td>≥ 200</td>
<td>≥ 200</td>
</tr>
<tr>
<td>Dimensional stability</td>
<td>EN 1107 (⁰C)</td>
<td>≤ 0,2</td>
<td>≤ 0,2</td>
<td>≤ 0,2</td>
</tr>
<tr>
<td>Foldability at low temperatures</td>
<td>EN 495-5 (⁰C)</td>
<td>≤ -40</td>
<td>≤ -40</td>
<td>≤ -40</td>
</tr>
<tr>
<td>UV exposure</td>
<td>EN 1297 (6000 h)</td>
<td>grade 0 - passes</td>
<td>grade 0 - passes</td>
<td>grade 0 - passes</td>
</tr>
<tr>
<td>Exposure/compatibility to aged bitumen</td>
<td>compatible</td>
<td>compatible</td>
<td>compatible</td>
<td></td>
</tr>
<tr>
<td>SRI (Solar Reflectance Index)</td>
<td>ASTM E1980</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>External fire performance</td>
<td>Broof (1t) ENV 1187</td>
<td>available upon request</td>
<td>available upon request</td>
<td>available upon request</td>
</tr>
</tbody>
</table>

* Fleece backed with 120gr woven-non-woven polyester available on request

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### MAPEPLAN® T ACCESSORIES

- Mapeplan® T D, membrane for details and particulars
- Mapeplan® T, metal sheets coupled to Mapeplan® T membrane
- Mapeplan® T, internal and external prefabricated corners
- Mapeplan® ADS 100, polyurethane adhesive
- Mapeplan® ADS 300, contact adhesives
- Mapeplan® T Seam Prep, liquid preparation overlaps
- Mapeplan® T Cleaner, cleaning liquid
- Mapeplan® T, outlets and special prefabricated pieces

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* Technical Data Sheet Rev. 1/16  page 2/4

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* Feeback backed with 120gr woven-non-woven polyester available on request

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* Mapeplan® Af 15, Mapeplan® Af 18, Mapeplan® Af 20

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* Considering the various situations of use, the numerous types of support surfaces and the possibilities for use inside... SpA cannot assume any liability for damages derived from the product’s results in terms of function or aesthetics.

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* Fleece backed with 120gr woven-non-woven polyester available on request

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* EN 13956: Permeability to water vapour

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* EN 1297: Reflected light

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* EN 1107: Dimensional stability

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* EN 495-5: Foldability at low temperatures

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* EN 12311: Tensile strength

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* EN 12316: Joint peel resistance

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* EN 12317: Joint shear resistance

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* EN 12691: Resistance to impact

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* EN 12310: Tear resistance

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* EN 1107: Dimensional stability

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* EN 495-5: Foldability at low temperatures

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* EN 1297: UV exposure

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* SRI (Solar Reflectance Index)

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* Broof (1t) ENV 1187: External fire performance

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* Available upon request

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* Mapeplan® T AF 15, Mapeplan® T AF 18, Mapeplan® T AF 20

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* Considering the various situations of use, the numerous types of support surfaces and the possibilities for use inside... SpA cannot assume any liability for damages derived from the product’s results in terms of function or aesthetics.
**MAPEPLAN® T Af LAYERING**

- High solar reflectance
- Environmentally friendly
- Resistant to ageing processes
- Flexible at low temperatures
- Puncture resistant
- Hail resistant
- UV-resistant
- High workability and weldability
- Formulation without plasticizers
- 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 websites at the following addresses: www.mapei.it, www.mapei.com, and www.polyglass.com

**LEGEND**

1. Overlap/Hot air welding
2. MAPEPLAN® T Af, fleece backed roofing membrane
3. MAPEPLAN® ADS 100 adhesive
4. Fully bonded thermal insulation
5. Fully bonded vapour control layer (for example Polyvap SA bi-adhesive)
6. Substrate
MAPEPLAN range is produced by:

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Tel. +39 04227547 - Fax +39 0422854118 - www.polyglass.com - info@polyglass.it