

MASTERPREN[®] THE

Synthetic membrane of TPO

Description

MASTERPREN THE is a synthetic liner of TPO modified polyolefin, with fibre reinforced composite, in two-colour version (green/black), obtained by coextrusion. This allows production of a single layer liner with different physical-chemical properties on the two sides. The upper green layer, exposed, is characterised by a very high resistance to weathering and ultraviolet rays, whereas the lower black layer is resistant to puncturing and to roots.

Typical applications

MASTERPREN THE can be applied in the following circumstances:

- Water containment structures open to the elements
- Artificial lakes and water features
- Canal and water transportation structures
- Landscaped areas, gardens and golf courses

Advantages

- It has superior mechanical characteristics and has an extremely high resistance to weathering and ultra violet rays
- High mechanical properties and resistance to puncturing
- Rot-proof
- Resistance to root penetration
- Good resistance to microbial attack
- Can be applied to a compacted soil base with a geotextile separation
- Long life expectancy

Packaging and roll sizes

MASTERPREN THE is supplied in various dimensions which are detailed below:

Thickness (mm)	1.2	1.5	1.8	2.0	2.5
Width (m)	2.10	2.10	2.10	2.10	2.10
Length (m)	25	20	20	20	20
Colour	Green / Black**				

**on request available in black colour

Application procedure

Usually applied by a Specialist Applicator. Please contact BASF Construction Chemicals for specific application assistance.

Watertight Systems & Engineered Solutions

BASF Construction Chemicals provides systems and engineered solutions, to suit the structure, at the design and construction stages, to ensure water tightness. Various products and elements which form an integral part of a system are manufactured and approved by BASF. The following ranges of products are available;

- Masterpren range – Preformed membranes
- Masterflex range - Active and passive joint treatment
- Masterseal range - Liquid applied membranes and protective coatings
- Masterflow range - High performance grouts
- Emaco and Concrevice ranges - Repair materials
- The Masterpren THE/ST has a dimpled surface which is used as a part of the vacuum system for use in critical situations. It is available in thickness of 2.2mm and 2.4mm

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*Physical / Chemical Properties

Thickness UNI EN 1849 - 2	1.2mm	1.5mm	1.8mm	2.0mm	2.5mm
Specific weight UNI EN 1849 - 2	1.26 kg/m ²	1.58 kg/m ²	1.89 kg/m ²	2.10 kg/m ²	2.63 kg/m ²
Tensile strength UNI EN ISO 527 - 3	≥ 10 N/mm ²	≥ 10 N/mm ²	≥ 10 N/mm ²	≥ 10 N/mm ²	≥ 10 N/mm ²
Elongation to break UNI EN ISO 527-3	≥ 550%	≥ 550%	≥ 550%	≥ 550%	≥ 550%
Resistance to impact strength DIN 16726-5.12	≥ 400 mm	≥ 700 mm	≥ 900 mm	≥ 1100 mm	≥ 1600 mm
Cold bending UNI EN 495 - 5	≤ -35°C	≤ -35°C	≤ -35°C	≤ -35°C	≤ -35°C
Hydrostatic pressure resistance (6 hours at 5 bar) UNI EN 1928 met. B	waterproof	waterproof	waterproof	waterproof	waterproof
Tear Resistance ISO 34 specimen fig. 2	≥ 45 N/mm	≥ 45 N/mm	≥ 45 N/mm	≥ 45 N/mm	≥ 45 N/mm
Resistance to static punching (CBR) UNI EN ISO 12236	≥ 750 N	≥ 1000 N	≥ 1200 N	≥ 1350 N	≥ 1700 N
Resistance to Oxidation tensile strength variation UNI EN 14575	< 25 %	< 25 %	< 25 %	< 25 %	< 25 %
Resistance to weathering (12000 h) tensile strength variation UNI EN 12224	< 25 %	< 25 %	< 25 %	< 25 %	< 25 %
Resistance to leaching tensile strength variation loss in mass UNI EN 14415 method A and B	< 25 % < 5 %	< 25 % < 5 %	< 25 % < 5 %	< 25 % < 5 %	< 25 % < 5 %
Root resistance DIN 4062	No penetration	No penetration	No penetration	No penetration	No penetration

The mechanical properties of the Masterpren THE/ST are the same as above except for the thickness of the dimples.
On request TPO Liquid is also available for making joints and details.

Storage

Store out of direct sunlight, clear of the ground and on pallets.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF Construction Chemicals representative.

BASF reserves the right to have the true cause of any liability determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational Health & Safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests which are carried out immediately after production.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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