Waterproofing



SMARTCARE TPO MEMBRANE

Flexible Fleece-backed fully bonded synthetic Roof and Waterproofing Membrane

Description

Smartcare TPO Membrane is a combination of both polypropylene (plastic) and ethylene-propylene (rubber) which exhibits excellent versatile physical properties of plastic and rubber featured with pliable and weldable properties.

Uses

Smartcare TPO Membrane can be applied in following circumstances:

- Exposed roofing laid loose
- Exposed roofing mechanically fixed
- Exposed roofing fully bonded (requiring a fleece backing)
- Landscaped areas and roof gardens
- Underground structures
- Potable water structures.

Characteristics

- High mechanical properties and resistance to puncturing
- Good resistance to hydrocarbons and bacterial attack
- Adhesion to most common building materials
- Environment friendly, no VOC, no plasticizers
- High resistance to weathering and UV
- Resistance to root penetration
- Fast application
- Welded joints for maximum watertightness
- Excellent long-term performance

Packing

Thickness (mm)	1.2	1.5	2.0
Width (m)	2.0	2.0	2.0
Length (m)	20	20	20

Technical Data

PROPERTIES	VALUES
Thickness (EN 1849-2)	1.2mm, 1.5mm &2mm

Standard colour	Upper layer: Grey Underside: Black
Tensile strength (ASTM D 412 and EN 12311-2)	
Longitudinal	>16N/mm^2
Transverse	>15N/mm^2
Elongation at break (ASTM D 412 and EN12311-2)	
Puncture resistance	
Dynamic (EN12691)	>1800mm
Static (EN12370)	>25kg
Water impermeability (EN 1928)	Pass test
Water Vapour transmission	
ASTM 96	Nil
ASTM 96	U = 90,000
Tear resistance (EN 12310-1)	
Longitudinal	1.2 mm : >800N 1.5 mm : >1000N 12.0 mm : >1000N
Transverse	1.2 mm : >800N 1.5 mm : >930N 12.0 mm : >1000N
Root resistance (FLL)	Pass test – no penetration
Lap joint strength (EN 12317 and UEATC)	Pass tests – Broken out joint
Durability Resistance UV (EN1297)	Pass test 2599 hrs – no crack
Hail resistance (EN13583)	29m/s
Resistance to micro-organism (EN846)	Pass test – Level 2
Suitable for in contact with potable water (BS6920)	Pass test
Fire resistance EN 13501-1	Class E
Cold Flexibility (EN 495-5)	-40°C
Dimensional stability (EN 1107-2) Heat aging in air (EN12311-2)	0.5%
Tensile strength change	<5%
Elongation change	<5%
Bond strength to concrete (OFB adhesive) EN 13596	>0.63N/mm^2

Methodology for Installation

The surface to receive Smartcare TPO Membrane should be clean and sound, free from cavity.

The concrete substrate should be dry (water content less than 9%), level and clean, without puddles cracks and dusts (Epoxy resin is a reasonable solution). Enough concrete strength is necessary to avoid cured coating peeling off from the substrate.

Smartcare TPO Adhesive Installation

Scrape coating: Use plastic or rubber/ metal scraper to apply first coat around 0.4-0.5mm thickness to cover beneath substrate pinholes, apply a second coat once the first coat is tack free.

Roller coating: Choose proper roller to avoid bubbles formed during application and follow the same process as above in two coats.

*Don't use spray coating method.

Coverage: Approximately 0.2kg/m2.

Suggested film thickness = 1.5mm minimum.

Smartcare TPO Membrane Installation

- Special fastening accessories or machines such as automatic welding machines, handheld guns and roller are required for installation.
- Slightly wet or dampen the TPO membrane for good bond strength.
- Roll the membrane over the adhesive and press firmly.
- Overlap joints shall be welded by automatic hot-air machines so as to enhance the wind force loading capacity.
- Maintain a minimum weld of 50mm.

Health & Safety:

No health hazards involved for Smartcare TPO membrane.

Refer to Smartcare TPO Adhesive Data sheet for relevant material safety.

Additional Information:

Smartcare TPO Membrane is a synthetic liner of TPO modified polyolefin which comes in two-color version (Light grey/black), obtained by co-extrusion, which allows it to be produced in a single layer a liner with different physical-chemical properties on the two sided. The upper light grey layer, which is exposed, is characterized by an extremely high resistance to weathering and ultraviolet rays, whereas the lower back

Smartcare TPO Membrane delivers unique high elasticity under normal condition and its superior plasticity under extreme temperature. Therefore, its excellent physical and chemical parameters (high tensile strength and elongation) forge its unbeatable quality.

Smartcare TPO Membrane is reliable, cost effective, environmentally friendly and easy to install and also suitable for single ply light steel roofs.

Storage:

Store in a cool and dry area, away from direct sunlight/ heat and in original packing.

Note: The information supplied in our literature or given by our employees is based on extensive experience and, together with that supplied by our agents or distributors, is given in good faith to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of work, we accept no liability for any loss or damage which may arise as a result thereof.

Version No. V01/23. Please note that this datasheet supersedes all previous versions UAE

For enquiries, feedback and complaints please contact or write to us at

Oman	:	800-01790	weassure.oman@asianpaints.com
U.A.E	:	800-27237437	weassure.uae@asianpaints.com
Bahrain	:	800-08098	weassure.bahrain@asianpaints.com
Qatar	:	+974-44693489	weassure.qatar@asianpaints.com

www.asianpaintsarabia.com

asianpaintsarabia