

PRODUCT CODE 5670

SmartCare PreApply HDPE 80 Heat Weld

High Density Polyethylene membrane for pre-application



SmartCare PreApply HDPE 80 Heat Weld is a unique, high performance, flexible High-Density Polyethylene (HDPE) sheet with pre-applied pressure sensitive adhesive, a reactive inorganic fine granule layer and heat weldable selvage.

Based on advanced polymer chemistry, the membrane has excellent resistance to chemical acids, bases, alkalis, salts, and other corrosive materials, while providing a barrier to water seepage from below ground. The sheet remains flexible over years, maintaining its integrity and continuing to provide protection.

High mechanical properties of the membrane ensure superior puncture resistance, Elongation & Tensile strength, while enabling excellent heat weld for fusion along the edges.

AREAS OF USAGE

- Basement
- Tunnel
- Other below ground concrete constructions
- Subway
- Cave
- Underground Metro Stations

CHARACTERISTICS/ ADVANTAGES

- Heat weldable selvage area is 80mm
- Unaffected by ground settlement
- Provides a barrier to water, moisture, and gas
- Ready for placement of reinforcement bars
- Excellent chemical resistant to soil types
- Resistant to acid and alkali
- Continuous serviceability from -30°C to 100°C – without cracking, tearing or brittleness failure
- Resistance to root penetration, suitable for green roofs

PRODUCT DATA

Physical Properties: Colour: Offwhite/ White
Dimensions: 1.5mm thickness, 1.2m width, 20m length

Shelf Life : 12 months from the date of Mfd

TECHNICAL DATA

PROPERTY	TYPICAL VALUE	TEST METHOD
Colour	Offwhite/ White	
Nominal Thickness mm	Min 1.50	ASTM D751
HDPE Sheet Thickness mm	Min 1.20	ASTM D751
Tensile strength, MPa	>27	ASTM D 412
% Elongation	>500%	ASTM D 412
Puncture Resistance, N	Max 1100 N/m	ASTM E 154
Peel Adhesion to Concrete, N/ m	Max 2360 N/m	ASTM D 903
Low temperature Flexibility, °C	No Cracks at -25°C	ASTM D 1970
Crack cycling	Pass	ASTM C 1305
Joint strength at overlap	2500	
Resistance to hydrostatic head	71	ASTM D 5385
UV Resistant Test	No change	ASTM G 154

APPLICATION METHOD

Selvage/overlap area of sheet to be cleaned with dry cloth and aligned properly. No dust, oil traces and contamination should be present.

The weld joint is made with standard heat welding machine with a temperature range 560 to 700°F & speed of 0.8 to 2 mts/min. Temperature and speed to be optimized as per site conditions considering environmental factors. Undulation below membrane can affect weld joint.

Storage: Dry conditions below +40°C. Store indoors or under cover on pallets. Do not double stack pallets