TamSeal 2000

High Performance HDPE Preformed Membrane for Upwards Bonding

CONSTRUCTION CHEMICALS

TECHNICAL DATA SHEET

DESCRIPTION

TamSeal 2000 is a high performance HDPE preformed membrane for upwards bonding to concete. It is designed for underground structures such as tunnels and basements. Its advanced technology sets it apart from other preformed membranes. TamSeal 2000 is a composite sheet comprising of a HDPE film and an adhesive that will react with wet mortar to provide a superior bond. TamSeal 2000 is a fully bonded waterproofing membrane that bonds directly to concrete, thus sealing the concrete and preventing any ingress of water around the structure.

KEY BENEFITS

- Excellent tensile strength, tear strength and elongation performance
- Highly reactive adhesive that ensure full and high adhesion to concrete surface
- High dimensional stability, tear resistance.
- Excellent puncture resistance performance
- Excellent chemical resistance to alkaline water from concrete slurry
- Cold-application with pressure sensitive adhesives, eco-friendly and does not need cement-mortar protective layer

TYPICAL APPLICATIONS

- Used in below grade waterproofing applications
- Basement wall and slab
- Tunnel walls and subway walls

TECHNICAL DATA

TamSeal 2000	
Appearance	White to off-white
Membrane system thickness	> 1.2 mm
Tensile strength (ASTM D412) a) Transverse b) Lengthways	 a) 29.9 MPa b) 31.6 MPa
Elongation (ASTM D412) a) Transverse b) Lengthways	 a) > 500% b) > 500%
Peel or stripping strength to concrete (ASTM D903-98:2017)	> 1 N/mm
Resistance to hydrostatic pressure (DIN 16726) EN1928	> 50 m water head
Resistance to puncture (ASTM E154)	> 1000N
Resistance to Impact EN13967:2012 S5.7/EN 12691	> 1200mm
Resistance to Tear EN13967:2012 S5.10/EN 12310-1	T: 535N / L: 475N
Joint Strength EN13967:2012 S5.11 & EN12317-2:210	T: 267N / L: 329N
Resistance to Static Loading EN13967:2012 S.13&EN12730 M.b	No leakage at 20kg
Volume Resistance (ASTM D257)	> 5 x 1011 Ohm
Volume Resistivity (ASTM D257)	> 4 x 1013 Ohm-Cm
Breakdown Strength (ASTM D149)	> 16.8 kV/mm
Dimensional Stability (SS 374) a) Longitudinal b) Transverse	 a) < 0.5% b) < 0.5%
Change in properties after storage in aqueous solution (DIN16726) Nacl 10% / $Ca(OH)_2$ / H_2SO_4 6%	
Thickness	< 10%
Tensile strength	< 10%
Elongation at break	< 10%
Peel or stripping strength to concrete	< 10%
Resistance to hydrostatic head	< 10%
Puncture resistance	< 10%
Fire Class EN ISO 11925-2	E

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APPLICATION GUIDELINES

Surface Preparation
Receiving substrates must be clean and of acceptable smoothness with no gaps or voids above 12 mm.

Application Method
TamSeal 2000 should not be used when temperatures are below -2°C. In condition when temperature is low, the tape adhesive must be heated slightly, with the means of a hot air gun during preparation to improve initial adhesion.

Horizontal and Vertical Substrates
Lay membrane to area required, cropping it when necessary. Carefully remove release liner material with the liner side facing the concrete pour.

To improve adhesion, fixings by mechanical parts or specially designed parts can be used at the lap joints. Fixing areas must be specially protected by over-laid layers of TamSeal 2000.

Roller Ends and Cuts Edges
Overlap all roll ends and cut edges by a minimum 75 mm. Additional TamSeal 2000 tape may be used to adhere overlapped areas of two membranes.

Exposure and Protection
Concrete should be poured within 45 days of membrane installation and ensure that the release liner is removed prior to concreting. Effort should be taken to prevent damage by other trades. Any punctured or damaged area should be repaired with a layer of TamSeal 2000 membrane with minimum 50 mm laps joint.

PACKAGING

TamSeal 2000 is supplied in: 20 m^2 or 36 m^2 per roll.

STORAGE

TamSeal 2000 should be stored at room temperature, kept dry and out of direct sunlight. If these conditions are obtained and the product packaging is unopened, a 12 month shelf life can be expected from date of manufacturing.

TamSeal 2000 must be stacked or stored in a manner to prevent damages from the weight of another roll of other materials.

HEALTH & SAFETY

TamSeal 2000 should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.