

TOPSEAL SG 320

Modified Water-base Polyurethane High Build Protective Membrane System

Description

Topseal SG 320 is a single component, modified water-base PU high-build liquid membrane system with superior exterior performance capabilities. It can be used on both metal and RC substrates. The cured membrane is tough yet flexible, and provides a seamless, protective, waterproof and UV resistant barrier strongly bonded to the applied surfaces. When applied on metal surfaces Topseal SG 320 provides a highly durable, moisture resistant, chemical and corrosion resistant protective coat. It is fast drying, odorless and is able to withstand exposure to tropical climates and harsh near-shore environments.

Uses

- Topseal SG 320 can be applied over any competent, stable, properly cleaned and prepared surface.
- Topseal SG 320 can be used as a protective corrosion-resistant waterproof top coat on metal surfaces; and as an anti-carbonation coating to exterior exposed surfaces, walls, and gable ends.
- When used with a suitable fibreglass reinforcement mesh Topseal SG 320 provides a very strong, highly durable, seamless coating to protect exposed concrete and metal surfaces

Advantages

- **Single component:** Easy to use, no mixing required, no errors on site.
- **Water-based, low VOC:** Safe to users, safe to use in confined, poorly ventilated areas
- **Non-staining:** Will not discolor tiles and grout, or cause water stains.
- **Non-hazardous:** No toxic solvents, tar, isocyanate or chemicals in Topseal SG 320 system.
- **Odourless:** No lingering objectionable chemical/solvent odors after application.
- **Environmentally friendly:** Fully water-based product, environmentally friendly usage.
- **Seamless:** Homogeneous, seamless barrier with no laps, joints when cured.
- **Total Adhesion:** Adheres strongly, compatible with all quality adhesives, wraps.

- **Long term flexibility:** Flexible, good recovery, does not embrittle.
- **Trafficable:** Able to accommodate human traffic, light vehicular traffic.
- **UV Resistant:** Specially formulated to resist high UV conditions in exposed usage.

Special Advantages

- Topseal SG 320 can be used as a tough, Reinforced Waterproof and Protective Membrane for repair of Metal surfaces, metal deck roofs, GRP surfaces, RC roofs.
- Topseal SG 320 is stable, is not affected by temperature extremes. It does not re-emulsify or deteriorate in exterior, exposed environments when properly cured and used in accordance with manufacturer's recommendations.

Technical Data

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Colors	Grey, White, other various colors
Service Temperature	10°C to 80 °C
Specific Gravity	Approx. 1.30
Percent Solids, weight	Approx. 60%
Viscosity	8000 – 12000 cps @ 25°C
Hardness, Shore A (median) ASTM D2240: 2000	>65
Adhesion To Substrate ASTM D4541 : 95	~ 1.20 – 1.40 N/mm ²
Tensile Strength (Mesh reinforced) ASTM D412 : 98a	>2.5 N/mm ²
Tensile Strength (Membrane only) ASTM D412 : 98a\	>16.5 N/mm ²
Elongation at break (membrane) ASTM D412 : 98a	~ 280 % (film aged 7 days, ambient)
Water Vapour Permeability (system) ASTM E96 : 95	~ 25 – 35 g/m ² /24 hrs
Flexibility	Pass -- 180°bend, 3mm mandrel

Water Vapour Permeability (System)	> 20 gm /m ² / day (DFT dependent)
Accelerated Weathering	Passed – No defects
Salt Spray Test ASTM B117	No blistering or corrosion, 1500 hours (2 coats ACPU on Topseal Prime ACI)
Exposure to Fungi, Algae	Passed -- (no growth)
Crack Bridging Test (0.8mm DFT)	Passed -- >2.00mm (no crack)
Water Penetration Test (positive)	Passed -- No penetration, (0.2kgf/cm ² @ 12hrs)
Touch Dry Time (mins)	Approx. 60 mins
Curing Time (minimum)	8 hrs subject to ambient conditions
Application Temperature	+10 to 35 deg C, Clear Weather.

Application Instruction

Application Method

Topseal SG 320 can be easily applied by brush, roller or spray in several thin coats to the desired thickness. The recommended total dry film thickness of the system generally ranges from 300 to 800 microns DFT depending on the desired service and substrate type.

Topseal SG 320 is recommended to be installed at not less than a minimum dry film thickness of 0.75--1.00 mm DFT for any heavy duty waterproofing applications.

Allow each coat of Topseal SG 320 to dry completely (approx. 4 hours) before applying second or third coat.

Concrete Substrate

Primer coat : 1 priming coat of Topseal Prime WB
~ (0.10 to 0.15 kg / sqm)

Topcoats : 2 coats of Topseal SG 320
(as a minimum).

Metal Substrate

Primer coat : 1 priming coat of Topseal ACI Primer
~ (0.10 to 0.15 kg / sqm)

Topcoats : 2 coats of Topseal SG 320
(as a minimum).

Consumption

Consumption of Topseal SG 320 is approximately

- 1.8 – 2.2 sqm / kg / coat OR 0.45 to 0.55 kg / sqm / coat.

Consumption of Topseal SG 320 (with glass fiber mesh) system is approximately:

- 1st Coat - 1.4 – 1.7 sqm / kg / coat OR 0.60 to 0.70 kg / sqm / coat
- 2nd Coat - 40 – 80 gsm woven glass fiber mesh (applied when 1st coat is wet)
- 3rd Coat - 1.8 – 2.2 sqm / kg / coat OR 0.45 to 0.55 kg / sqm / coat
- 4th Coat - 1.8 – 2.2 sqm / kg / coat OR 0.45 to 0.55 kg / sqm / coat

Cleaning

Clean up with water before curing occurs.
Cured material can be removed with a GP solvent.

Packaging

The products are packed in 18 litre pails (20 or 24 kg nett) and 200 litre drums (250 kg nett).

Shelf Life

Shelf life is 12 months in unopened containers under sheltered storage in a cool, dry area.

Technical Support

Topcrete offers a technical support package to specifies, end-users and contractors, as well as on site technical assistance.

Health & Safety

For further information, refer to the product Material Safety Data Sheet, available upon request.

Additional Information

Topcrete manufactures and offers a wide range of complementary products which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

Warranty

Topkrete Sdn Bhd warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to TOPKRETE SDN BHD shall be limited to replacement of the material proven to be defective, and TOPKRETE SDN BHD shall in no case be liable otherwise or for incidental or consequential damages. **TOPKRETE SDN BHD MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED.** User shall determine the suitability of the product for its intended use and assume all risks and liability in connection therewith.

Important note

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