Vulkem® 350NF/346/346

Elastomeric, Waterproof Traffic Deck Coating System

PRODUCT DESCRIPTION

Vulkem® 350NF/346/346 is a complete drive-on, modified polyurethane traffic deck coating system composed of a base coat (Vulkem® 350NF), heavy duty intermediate coat (Vulkem® 346) and a top coat (Vulkem® 346). This unique waterproofing system is designed to have tenacious adhesion, extreme impact and abrasion resistance along with remarkable chemical stability. The elastomeric properties of the system's components enable the complete assembly to work effectively over the concrete slab, bridging the shrinkage cracks.

Vulkem® 350NF Base Coat is a single-component, lowodour, low-VOC, urethane membrane that bonds firmly to clean, dry concrete and metal. It retains its integrity even if substrate movement causes hair-line cracks of up to 1.5 mm. If cut or damaged, Vulkem® 350NF will prevent water migration between itself and the substrate. Vulkem® 350NF is available in roller (R) and in self-leveling (SL) grade for vertical and horizontal application.

Vulkem® 346 Intermediate Coat is an aliphatic onecomponent urethane that is applied after the Vulkem® 350NF Base Coat has cured. The intermediate coat is loaded with aggregate to give the system excellent impact, abrasion and chemical resistance.

Vulkem® 346 Top Coat is an aliphatic one-component polyurethane that is applied after the Vulkem® 346 intermediate coat has cured. Interlaminary adhesion to Vulkem® 346 is exceedingly strong. The top coat affords excellent abrasion resistance, UV stability and chemical resistance to complete this Vulkem® Traffic Deck Coating System.

BASIC USES

Vulkem® 350NF/346/346 is a cold-applied traffic deck coating system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. Additionally, the system will protect the concrete from the damaging effects of water, deicing salts, chemicals, gasoline, oils and anti-freeze. Vulkem® 350NF/346/346 can be used for areas including but not limited to:

- Driven on Podiums
- Parking Structures / Parking Decks
- Machine Rooms / AHU Rooms / Generator Rooms
- Concrete Drainage Channels
- Water Tanks (Insides)
- Pool Decks
- Any location where both waterproofing is needed and abrasion expected

FEATURES AND BENEFITS

- Fast cure through time allows for use 72 hours after installation.
- Mildew and fungus resistance safeguards concrete surfaces against environmental contaminants.
- Excellent durability and UV resistance extends the useful life of vehicular systems.
- Recoatable and compatible with other Tremco sealants, which enhance waterproofing protection with full system compatibility.

AVAILABILITY

Please contact Tremco India Pvt. Ltd. for your project requirements.

PACKAGING

18.9-L pails, 36 pails/pallet
Colours: Vulkem® 350NF: Grey; Vulkem® 346: Gray, ask us for options.

SHELF LIFE & STORAGE

Protect from moisture. Store on a skid or pallet and cover with polyethylene or tarp. Do not double stack pallets. Shelf life is 12 months when stored properly in unopened packaging.

LIMITATIONS

- Do not apply to damp or contaminated surfaces.
- Use with adequate ventilation

APPLICABLE STANDARDS

- Conforms to ASTM C957
- Conforms to UL 790 - Class A, for non-combustible substrates.

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WARRANTY

Tremco warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Product proven to be defective, and Tremco shall not be liable for any loss or damage.

BASIC APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION & DETAILING

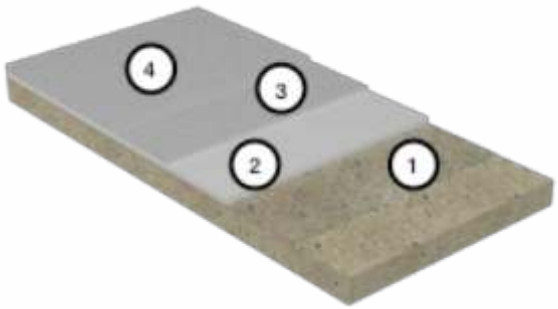
- Concrete shall attain a 25 MPa minimum compressive strength prior to application.
- All surfaces must be structurally sound, free of dirt, grease, oil, release agents and or other contaminants.
- All surface imperfections, non - structural cracks etc. should be repaired with an appropriate repair mortar in order to provide a relatively uniform surface.
- Active water ingresses / leaks, through cracks and voids need to be plugged using our TREMproof® Inject Range of Polyurethane Injection Resins, prior to application.
- Concrete finish shall be a light steel trowel followed by a fine-hair broom, or equivalent ICRI #2-#4 finish. Moisture content in the concrete must be lower than 4.5% as measured by a Tramex CME 4 Moisture Meter.
- Install Polymer Modified Mortar (using TREMproof® Latex) or Dymonic® 100 coving at all horizontal, vertical interfaces to ensure smooth transition of the membrane
- Detail all covings, edges and penetrations using Vulkem® 350NF and Dymonic® 100.
- All shrinkage cracks shall be treated with a 0.75 mm thick coating of Vulkem® 350NF, 15 cm wide, centered over the crack.
- Moving cracks greater than 1.6 mm shall be routed and caulked with Dymonic® 100, followed by a 1.5 mm detail coat of Vulkem® 350NF extending a minimum of 7.5 cm on either side of the crack.
- Allow all detail coats to cure for a minimum of 4 to 6 hr depending on temperature and humidity.

APPLICATION OF VULKEM® 350NF/346/346 System

- Prime all concrete surfaces using Vulkem #171 Primer.
- The base coat Vulkem∃ 350NF shall be roller or squeegee applied, wet-in-wet over the primer. Coat the entire area, including over all detail coats, but excluding expansion joints. Cross-rolling may follow in the event the coating needs to be levelled. Vulkem∃ 350NF can be applied with a solvent-resistant, medium-nap (9.5 mm to 12.7 mm) roller sleeve.

BASIC APPLICATION INSTRUCTIONS (Continued)

- Allow Vulkem® 350NF to cure a minimum of 4 to 6 hr and a maximum of 24 hr. Cure rates depend on temperature and humidity. Refer to cure rate guideline in chart at the end of this document.
- If the Vulkem® 350NF has been applied for 24 hr or longer during the ideal temperature application range (see chart on last page of document), it should be cleaned with a damp cloth of Xylene (do not saturate it). Prime coat it with Vulkem® Primer #191 QD.
- Apply the wear coat Vulkem® 346 similar to the base coat. Sprinkle 0.6 to 0.9 mm sand to refusal as per the consumption chart below. Repeat the procedure for heavy duty applications.
- After curing 4 to 6 hours, Apply the top coat of Vulkem 346 and let cure for 72 hours, preferably for 5 days before allowing traffic on the coating.
- Vulkem® 350NF will cure in 4 to 6 hours for temperatures between 20 & 30ºC and in < 4 hours for temperatures over 30ºC.
- Vulkem® 346 will cure in 6 to 8 hours for temperatures between 20 & 30ºC and in 2 to 4 hours for temperatures over 30ºC.
- Ideal Surface Application temperatures is 30ºC - 35ºC.
- Clean all adjacent areas to remove any stains or spills with Toluene or Xylene.
- Clean tools or equipment with Toluene, or Xylene before material cures.
- Clean hands by soaking in hot, soapy water then brushing with a stiff bristle brush.
- For Detailed Application Instructions and detailing advice for various applications, please refer to Vulkem® 350NF/346/346: Application Instructions



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APPROXIMATE CONSUMPTION RATES			
Product	**Coverage**	**Layer Thickness**	**Comments**
Vulkem® Primer #171	2.5 to 4 sq. m / L	-	Apply 1st Coat wet-in wet
Vulkem® 350NF (Base Coat)	1.5 sq. m / L	0.65 mm	Allow 6 to 24 hours to cure before proceeding.
Vulkem® 346 (1 coat for normal use, 2 for Heavy Duty Use)	2.6 sq. m / L	0.38 mm x (1 or 2)	Broadcast 0.6 -0.9mm silica sand (20 to 40 mesh) into each layer till refusal
Top Coat of Vulkem® 346	3.3 sq. m / L	0.3 mm	Absent of aggregate. Allow 72 hours of curing before opening to traffic.

TYPICAL TECHNICAL PROPERTIES				
Property	**Test Method**	**Vulkem® 350NF**	**Vulkem® 346**	**Vulkem® 346**
Maximum VOC	Method 310	60 g / L	353 g / L	353 g / L
Flash Point	Set-A Flash	> 71ºC	29ºC	29ºC
% Solids by Weight	ASTM D1353	90 to 98%	72%	72%
Drying Time (25C, 50% RH)	ASTM D1640	0.65 mm, 4 -6 hrs	0.38 mm, 6 -8 hrs	0.38 mm, 6 -8 hrs
Open to Vehicular Traffic		NA	-	Min. 72 Hrs
Weathering	ASTM D822	NA	No Effect	No Effect
Salt Spray	ASTM B117	NA	No Effect	No Effect
Viscosity	Brookfield C&P	4000 - 6000 cps	2000 – 3000 cps	2000 – 3000 cps
Elongation	ASTM D412	600 to 700%	120%	120%
Tensile Strength	ASTM D412	1.5 to 3.0 N/mm ^{2}	19.3 N/mm^2	19.3 N/mm^2
Shore A Hardness	ASTM D2240	45 to 60	85 to 95	85 to 95
Adhesion Peel Strength	ASTM D903	Unprimed Concrete, 100% Cohesive Failure @ 3.5 to 5.25 N/mm	100% Cohesive Failure	100% Cohesive Failure
Adhesion (Pull Off)	ASTM D4541	1.0 to 1.4 N/mm ^{2}	NA	NA
Abrasion Resistance (1000 Cycles)	ASTM D4060	NA	50 mg	50 mg
Accelerated Aging	ASTM D573	No loss of elongation or tensile strength	No loss of elongation or tensile strength	No loss of elongation or tensile strength

* Accelerated aging test. 1 daily cycle of UV and water spray greatly exceeds 1 day of real world exposure. Contact Tremco Technical Service or your local sales representative for more information.

- **Please contact us at india@tremcocpg.com to confirm the most up-to-date Product Data Sheets.**

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classifica on & Labelling of Chemicals (GHS) requirements.

Waterproofing | Sealants | Glazing Aids | Firestopping

Version: VER.:01/19

TREMCO Construction Products Group

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