

## Vulkem® 350/345/346

### Elastomeric, Waterproof Traffic Bearing

#### Product Description

Vulkem 350/345/346 is a modified polyurethane Traffic Deck Coating System composed of a base coat (350), heavy duty intermediate coat (345) and a top coat (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 give and work with the concrete slab, bridging the shrinkage cracks.

Vulkem 350 Base Coat is a one-part 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 1/16 inch (1.5mm). If cut or damaged, Vulkem 350 will prevent water migration between it and its substrate. Vulkem 350 is available in an R (roller) and an SL (self-leveling) grade for vertical and horizontal application.

Vulkem 345 intermediate coat is a two-part urethane that is applied after the Vulkem 350 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 Polyurethane that is applied after the Vulkem 345 intermediate coat has cured. Interlaminar adhesion to Vulkem 345 is exceedingly strong. The top coat affords excellent abrasion resistance, UV stability and chemical resistance to complete the Vulkem Traffic Deck Coating System.

#### Basic Uses

Vulkem 350/345/346 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 damaging effects of water, deicing salts, chemicals, gasoline, oils and anti-freeze.

#### Applicable Standards

Conforms to ASTM C957.

#### Packaging

Vulkem 350: 5 Gallon (18.9 L) Pails, 55 Gallon (208.2 L) Drums.  
Vulkem 345: 5 Gallon (18.9 L) Pails, 55 Gallon (208.2 L) Drums.  
Vulkem 346: 2 Gallon (7.6 L) Pails, 5 Gallon (18.9 L) Pails, 55 Gallon (208.2 L) Drums.



#### Standard Colors

Vulkem 346 is available in Beige, Gray, Limestone, Maple and Slate Gray. Special colors available upon request.

#### Installation

Concrete shall be water cured and in place for at least 14 days, preferably 28 days. Concrete finish shall be a light steel trowel followed by a fine hair broom, or equivalent finish. New or existing slabs must be dry, clean, sound and free of all contaminants which may interfere with adhesion or proper curing. Chemical and/or mechanical surface preparation may be required.

Refer to the Vulkem 350/345/346 Application Instructions for specific application details. The techniques involved may require modification to adjust to the job-site conditions. Consult your Tremco Field Representative for specific design requirements.

#### Limitations

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

#### Availability

Immediately available from your local Tremco Field Representative, Tremco Distributor or Tremco Warehouse.

#### Warranty

Tremco warrants its Coatings 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 Coatings. Tremco's sole obligation shall be, at its option, to replace or refund the purchase of the quantity of Tremco Coating proved to be defective and Tremco shall not be liable for any loss or damage.

## TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Basecoat Vulkem 350	Interm. Coat Vulkem 345	Topcoat Vulkem 346
Solids (by weight)	ASTM D1353	88%	82%	72%
Drying Time @75°F, 50% RH	ASTM D 1640	30 mil film 24 hours	15 mil film 12 hours	9-11 mil film 24 hours
Flash Point	Set-A-Flash	112°F	95°F	85°F
Hardness (Shore A)	ASTM D 2240	25-35	60-70	85-95
Tensile Strength	ASTM D412 @75°F	320 psi	750 psi	3205 psi
Elongation	ASTM D 412	1040%	90%	120%
Adhesion (Peel Strength)	ASTM D903	Unprimed Concrete 30 lb/in	Vulkem 350 Basecoat 100% cohes.	Vulkem 345 Interm. Coat 100% cohes.
Abrasion Resistance (1000 cycles)	ASTM D4060	N/A	N/A	100mgms
MVT	ASTM E 96(B)	N/A	N/A	2.0 perms
Weathering Resistance	ASTM D 822 Weatherometer 350 hours	N/A	N/A	No effect
Salt Spray	ASTM B 117	N/A	N/A	No effect
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.
Adhesion (Pull-off)	ASTM D4541	400psi	N/A	N/A
		<b>ASTM C-957 Requirement</b>		<b>Typical Value</b>
Chemical Resistance (Tensile Retention)		Greater than		
Water		70%		98%
Ethylene Glycol (Anti-Freeze)		70%		97%
Mineral Spirits		45%		85%
Motor Oil		Not included as part of ASTM C-957		92%
Hydraulic Brake Fluid		Not included		84%
Deicing Chemicals		Not included		99%
7% Detergent Solution		Not included		100%
Fire Rating		UL Rating – Class A		

N/A = Not applicable to component, data is applicable to System or Topcoat only.

NOTE: These are typical values and should not be taken as specification items.



### Tremco Commercial Sealants & Waterproofing

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## Vulkem® 350-351 (LV)

### Slip-Resistant Pedestrian and Waterproofing System

#### Product Description

Vulkem 350/351 is an attractive composite waterproofing system comprised of tough-curing liquid polyurethane. It cures to form a rubber membrane surface that provides a lasting eye-appealing and easy-to-clean coating. Non-skid surfaces for pedestrian traffic features use of an aggregate-laden top membrane for surest footing. Vulkem 350/351 may be used to apply a seamless, monolithic waterproof membrane to smooth concrete, to well-anchored and primed wood and to primed metal surfaces. Simple, easy-to-follow procedures, use of conventional tools or optional spray permit fast, sure application.

Vulkem 350 is a one part urethane membrane that bonds firmly to clean, dry concrete, wood or metal. It retains its integrity even if substrate movement causes hairline cracks of up to 1/16" (1.6mm). If cut or damaged, Vulkem 350 will prevent water migration between it and its substrate. Vulkem 350 is available in an R (roller) and an SL (self-leveling) grade for vertical or horizontal use.

Vulkem 351 is applied after the Vulkem 350 basecoat has cured. The finished top layer affords excellent abrasion resistance and outstanding elongation and recovery to expand and contract with substrates. Interlaminar adhesion to Vulkem 350 is exceedingly strong.

#### Basic Uses

Vulkem 350/351 is a cold-applied coating system designed for waterproofing plaza decks, pedestrian walkways, balconies and other areas needing a waterproof and wear-resistant coating.

#### Packaging

Vulkem 350 basecoat - 5 gallon (18.9 L) pails, 55 gallon (208.2 L) drums.  
 Vulkem 351 topcoat - 2 gallon (7.6 L) pails, 5 gallon (18.9 L) pails, 55 gallon (208.2 L) drums.

#### Standard Colors

Vulkem 351 is available in Beige, Gray, Limestone, Maple, Slate Gray, Black and White.

#### Installation

Concrete shall be water cured and in place for at least 14 days, preferably 28 days. Concrete finish shall be a light steel trowel followed by a fine hair broom, or equivalent finish. New or existing slabs must be dry, clean, sound and free of all contaminants which may interfere with adhesion or proper curing.

Chemical and/or mechanical surface preparation may be required. Vulkem 350 basecoat is normally applied at the rate of 40-60 square feet per gallon (.98 m<sup>2</sup>/L - 1.47 m<sup>2</sup>/L) yielding 40-25 wet mils (1.03mm - 0.7mm) thickness. The coating is squeegee applied, followed by back rolling to evenly distribute the material. Cure Vulkem 350 to firm rubber before topcoat application. The Vulkem 351 topcoat is applied with a medium nap (3/8" - 1/2") roller at the rate of 100 square feet per gallon (2.5 m<sup>2</sup>/L) to yield approximately 15 wet mils (.38mm) thickness. Silica sand is immediately broadcast into the wet topcoat and backrolled to evenly distribute the aggregate. For a non-slip finish, use 15-18 lbs. per gallon (.5 kg/L).

### TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Vulkem 350 Basecoat	Vulkem 351 Topcoat
Tensile	ASTM D-412	320 psi (2.21MPa)	3000 psi (20.7MPa)
Elongation	ASTM D-412	1040%	140%
S <sub>100</sub>	ASTM D-412	60 psi (414 kPa)	2200 psi (15.2MPa)
Hardness Shore A	ASTM-C661-83	20	75
Peel Strength (on concrete)	ASTM C-794	30 lbs. (133N) 100% cohesive	100% cohesive to Vulkem 350
Permeability	E-96	0.12 metric perms	.06 metric perms
UL 790 CLASS A FIRE RATING CAN/ULC - S102.2 - M88 CLASS A RATING			
Wet Material Properties			
Non Volatile Content	ASTM D-1353	79% min. (98% for LV)	63% min.
Viscosity, cps	Brookfield HBT	8 - 10,000	2 - 3,000
Cure Time @77°F (25°C) 50% R.H.	ASTM D-1640	48 hrs. max.	24 hrs. max.
Flash Point	Setaflash	112°F (44.4°C)	82°F (27.8°C)

Aggregate may not be required on vertical applications. Refer to Vulkem 350/351 Application Instructions for specific application details. The techniques involved may require modification to adjust to the job site conditions. Consult your local Tremco Representative for specific design requirements.

### Availability

Immediately available from your local Tremco Field Representative, Tremco Distributor or Tremco Warehouse.

### Limitations

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

### Warranty

Tremco warrants its Vulkem Coatings 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 Vulkem Coatings. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Vulkem Coatings proved to be defective and Tremco shall not be liable for any loss or damage.



# Vulkem<sup>®</sup> 360NF

## Rapid Cure Low Odor/V.O.C. Compliant Sloping/Patching/Waterproofing Membrane

### Product Description

Vulkem<sup>®</sup> 360NF is a low-odor, V.O.C. compliant, water-cured, rapid-setting polyurethane basecoat that possesses tenacious adhesion to clean and dry concrete, wood and metal. Vulkem 360NF is a versatile basecoat that can be applied at various thicknesses. Vulkem 360NF is mixed with water as the curative at a ratio of five parts membrane to one part water.

### Basic Uses

Vulkem 360NF has been specially formulated for the odor sensitive applications created in heavily occupied areas. Vulkem 360NF is ideal for plazas, vehicular decks, pool and recreation decks, balcony terraces, mechanical rooms, restrooms, kitchens, stadiums, ramp areas and elevated plenums. Vulkem 360NF is ideal for restoration work where both time and odor are a concern.

### Compatible Vulkem Intermediate and Topcoats

Tremco offers a complete line of time-tested, compatible Vulkem intermediate and topcoats that form a strong interlaminary bond to the Vulkem 360NF. Compatible topcoats are Vulkem<sup>®</sup> 351, 351NF, 346, 951NF and 950NF (indoor only for 950NF). Compatible intermediate coats are Vulkem<sup>®</sup> 345 and 950NF. These Vulkem coatings when used in conjunction with the recommended aggregate, creates a tough, aesthetically pleasing, abrasion resistant wearing surface over the Vulkem 360NF basecoat.

### Standard Color

Grey

### Packaging


Vulkem 360NF basecoat- 5 U.S. Gallons (18.9 L) in an Imperial 5 gallon (22.7 L) pail.

### Quick Cure Catalyst

Available upon request. Refer to application instructions for specific information.

### Mixing Instructions

One part of water is added for every five parts of membrane. Mix until the water is completely incorporated into the base polymer, resulting in a viscous, elastomeric coating.



**SEALANT-WATERPROOFING & RESTORATION INSTITUTE**

**Issued to:** Tremco Incorporated  
**Product:** Vulkem 360 NF SL Basecoat & 951 NF Topcoat

**ASTM D 412:** Tensile Strength of Top Coat  
 Vulkem 951  
 Tensile Strength: 5,180 psi; Pass ✓  
 Elongation: 260%

**ASTM D 4541:** Adhesion of Base Coat  
 Vulkem 360 NF SL  
 Pull-off Adhesion: 350 psi Pass ✓

**ASTM D 4060:** Abrasion Resistance of Top Coat  
 Vulkem 951  
 Abrasion Resistance: 33 mgms loss  
 - mgms loss/1,000 cycles Pass ✓

**Validation Date:** 3/8/07-3/7/12  
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**DECK COATING VALIDATION**  
[www.swrionline.org](http://www.swrionline.org)

### Installation

Refer to Vulkem 360NF, 950NF, 951NF or Vulkem 360NF/351NF Application Instructions for specific application details. The techniques involved may require modification to adjust to job-site conditions. Consult your Tremco Representative for specific design requirements.

### Availability

Immediately available from your local Tremco Field Representative, Tremco Distributor or Tremco Warehouse.

### Warranty

Tremco warrants its Vulkem Coatings 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 Vulkem Coatings, sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of Vulkem Coatings proved to be defective and Tremco shall not be liable for any loss or damage.

Please refer to our website at [www.tremcosealants.com](http://www.tremcosealants.com) for the most up-to-date Product Data Sheets.

## TYPICAL PHYSICAL PROPERTIES

Property	ASTM Method	Vulkem 360NF
Shore A Hardness	D2240	40-50
Tensile Strength, psi	D412	275 PSI
% Elongation	D412	500%
100% Modulus, psi	D412	130 PSI
Tear Strength, psi	D642	60-80 PSI
Peel Strength, pli (concrete)	C794	45 PLI
Peel Strength, pli (plywood)	C794	40 PLI
Crack Bridging	C836	1/8"
Peel-off Adhesion	D4541	350psi



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## Vulkem® 360NF/950NF and/or 951NF

### Medium & Heavy Duty Deck Coating System

#### 1. PURPOSE

1.1 The purpose of this document is to establish uniform procedures for applying the VULKEM Neighbor Friendly Medium and Heavy Duty DECK COATING SYSTEM.

1.2 The techniques involved may require modifications to adjust to job site conditions. Consult your Tremco Representative for specific design requirements.

#### 2. SCOPE

2.1 This document will provide the necessary instructions for the application of the VULKEM NEIGHBOR FRIENDLY MEDIUM AND HEAVY DUTY DECK COATING SYSTEM to qualify for the manufacturer's warranty.

#### 3. CONDITIONS FOR CONCRETE SURFACES

3.1 Concrete shall be water cured and in place for at least 14 days, preferably for 28 days.

3.2 Concrete shall be finished with a light steel trowel followed by a light broom finish.

3.3 Surface to receive coating, sealant or liquid applied flashing material shall be sound, dry, clean and free of all dirt, dust, oil, grease, wax, tar, asphalt, mildew, mold, paint, sealers, coatings, curing agents, loose particles, latence and other contamination or foreign matter which may interfere with the adhesion.

Job site conditions may require use of a Vulkem Primer. Consult a Tremco Representative for recommendations prior to installing materials.

3.4 The condition of "dry" shall be determined by fastening a rubber mat to the concrete deck for a minimum of six hours. The mat shall be located in an area exposed to the sun. After six hours (minimum), the surface beneath the rubber mat shall show minimal evidence of moisture or dampness.

3.5 Structural or shrinkage cracks in the concrete surface which are greater than 1/16 inch (1.5mm) wide shall be ground out to a minimum of 1/4 inch by 1/2 inch (6mm x 12mm) deep and treated following section 7, Detail Work.

3.6 In the event of exposed reinforcing steel, the exposed portions of steel shall be ground to expose clean, bright metal and primed with Vulkem Primer #171 or TREMprime Multi-Surface Urethane Primer\*.

3.7 Surfaces shall be made free of defects which may telegraph and show through the finished coating. Surfaces that are rough (fins, ridges, exposed aggregate, honeycombs, deep broom finish, spalls, etc.) shall be leveled and made

smooth by grinding or by applying a nonshrink grout. Repaired areas must be primed with Vulkem Primer #171 or TREMprime Multi-Surface Urethane Primer\*.

3.8 All drains shall be cleaned and operative. Drains shall be recessed lower than the deck surface. The surface shall be sloped to the drain to provide positive drainage. Primer may be required. See Section 5.

3.9 If the project is restorative in nature, old sealant and backing material shall be removed. The joint interface may require a thorough wire brushing, grinding, sandblasting, solvent washing and/or a primer.

#### 4. CONDITIONS FOR WOOD SURFACES

4.1 Wood must be firm and ring-shank screwed in place, with proper consideration given to joints and movement.

4.2 Wood surfaces must be primed with Vulkem Primer #171 or TREMprime Multi-Surface Urethane Primer\* typically do not need primed when applying Vulkem 360NF basecoat. A mock-up is necessary to assure proper adhesion.

4.3 Wood shall be 5/8" exterior-grade plywood, A-side up.

\*Note: Allow Vulkem Primer #171 to dry to slightly tacky before proceeding. Allow TREMprime Multi-Surface Urethane Primer to dry completely, at least 30 minutes.

#### 5. SPECIAL SURFACES

5.1 Vulkem 360NF requires TREMprime non-porous primer on metal surfaces. Lap joints must be sealed with Dymeric 240FC sealant and coated with Vulkem 360NF in order to cover seams, bolts and rivets prior to applying the system.

#### 6. MATERIALS

6.1 Recommended materials and their uses are as follows:

DYMERIC 240FC SEALANT. A two-part chemically curing, gun grade polyurethane deck joint sealant for use in sealing cracks, expansion joints, control joints and for use in forming cants.

VULKEM 360NF COATING. A two-part, slightly thixotropic, self-leveling polyurethane coating used as the elastomeric waterproofing base coat. In addition Vulkem 360NF, when mixed with proper amounts of aggregate, can be used as a patching and sloping material.

VULKEM 950NF COATING. A two-part aromatic low odor/no VOC, 99% solids polyurethane topcoat providing a chemical resistant, weatherproof wearing surface.

VULKEM 951NF COATING. A two-part aliphatic low odor/no

VOC, 99% solids polyurethane topcoat providing a chemical and UV resistant, color stable, weatherproof wearing surface.

**TREMPRIME MULTI-SURFACE URETHANE PRIMER.** A two-part, very low odor, quick drying, ultra-low VOC primer for use between urethane and wood, concrete and other urethane surfaces.

**VULKEM PRIMER #171.** A one-part, film forming primer to be used on porous surfaces to improve adhesion and to reduce pinholes in the membrane. Also used in expansion joints subject to continuous immersion or subject to water intrusion from hydrostatic conditions.

**TREMPRIME NON-POROUS PRIMER.** A one-part primer for use on any metal surface to which any Vulkem product will be applied.

**VULKEM PRIMER #191.** A one-part interlaminar primer for use when applying a fresh coat of Vulkem urethane after the proceeding coat has been exposed for over 24 hours and/or has lost its surface tack.

**BACKER ROD.** A closed cell polyethylene back-up material used in expansion joints, at the base of cants to prevent three-sided adhesion and to control the depth of the sealant.

## 7. DETAIL WORK

Note: Do not apply sealant or coatings to a frosty, damp or wet surface or when air temperature is below 40°F (4°C) or the surface temperature is above 110°F (43°C). Cure times as stated below are based upon standard ambient conditions of 75°F (25°C), 50% relative humidity. A decrease in ambient temperature will significantly lengthen the cure time.

7.1 Mix the Dymeric 240FC using a suitable size mixing blade in a slow speed electric or air powered drill motor. Avoid trapping air into the mixture. Move the mixing blade around the inside of the container to assure complete disbursement of the catalyst.

7.2 At horizontal and vertical surface junctures lay a 1/4" inch (6mm) diameter backer rod into the corner (such as: curbs, wall sections, columns or penetrations through deck) Apply a bead of Dymeric 240FC Sealant, one inch (2.5cm) in width, over the Backer Rod. Tool the sealant bead to form a 45 cant. Use sufficient pressure to force out any entrapped air and to assure complete wetting of the surface. Remove excess sealant from the deck or wall surface.

7.3 In expansion and seismic joints, install a Backer Rod, 1/8 inch to 1/4 inch (3mm to 6mm) diameter larger than the joint width to all prepared expansion joints. Set depth of Backer Rod to control the depth of the sealant. (Depth of sealant is measured from the top of the backer rod to the top of the concrete surface.) Proper depth of sealant is as follows:

For joints 1/4 inch (6.4mm) to 1/2 inch (12.7mm) wide, the width to depth ratio should be equal. Joints 1/2 inch (12.7mm) wide or greater should have a sealant depth of 1/2 inch (12.7mm). Minimum joint size is 1/4 inch by 1/4 inch (6.4mm by 6.4mm).

7.4 Completely fill joint with Dymeric 240FC Sealant or Vulkem 360NF. For cracks, tool sealant flush with the surface. For expansion joints, tool Dymeric 240FC Sealant slightly concave so the surface of the sealant is below the surface of the deck.

7.5 Allow Dymeric 240FC Sealant to cure overnight.

7.6 Apply a strip of tape (masking tape or duct tape) to the vertical sections, two or three inches above the Dymeric 240FC Sealant cant to provide a neat termination of the vertical detail coat. Apply a 25 mil (.64mm) thick detail coat of Vulkem 360NF over the treated cant and extend the Vulkem 360NF to the tape on the vertical surface and 4 inches (10.2cm) onto the horizontal surface. Feather the terminating edge of the Vulkem 360NF detail coat on the horizontal surface to prevent these edges from showing through the finished coating.

7.7 Apply a 30 mil (.75mm) thick detail coat of Vulkem 360NF, 6 inches (150mm) wide centered over all untreated cracks, all routed and sealed cracks and over all cold joints. Feather terminating edge of detail coat to prevent these edges from showing through the finished coating.

7.8 All Vulkem 360NF detail coats can be recoated immediately with Vulkem 360NF.

NOTE: Expansion and Seismic joints should not be coated over.

## 8. COATING APPLICATION

8.1 Thoroughly mix Vulkem 360NF prior to adding water.

8.2 Apply Vulkem 360NF at 25 mils (0.64mm) thickness to the entire area to be coated, including over all detail coats, but excluding expansion joints. The most popular method of application is with a notched trowel. Backroll to evenly distribute coating and to eliminate pinholes. Vulkem 360NF can also be applied with a roller equipped with a solvent resistant roller sleeve.

8.3 Allow Vulkem 360NF to cure for a minimum of 6 hours and a maximum of 24 hours at 75°F (24°C), and 50% relative humidity.

8.4 When a faster cure time is desirable, Vulkem 360NF Quick Cure Catalyst can be added after the water has been added and mixed into the system. The Vulkem 360NF Quick Cure Catalyst will enable the applicator to topcoat the system within 3 hours at 75°F (24°C), and 50% relative humidity.

NOTE: The Vulkem 360NF should have a slightly tacky surface to aid in the adhesion of the Vulkem Ultra-High Solids Topcoats.



If the membrane coat has reached a tack-free cure, the surface must be cleaned with a cloth which has been wet with Xylol (Xylene). DO NOT SATURATE THE SURFACE WITH SOLVENT. IF THE MEMBRANE COAT HAS BEEN ALLOWED TO BE EXPOSED FOR MORE THAN 24-36 HOURS, IT SHOULD BE CLEANED, THEN PRIME COATED WITH VULKEM PRIMER #191 or TREMPRIME MULTI-SURFACE URETHANE PRIMER. Contact your local Tremco representative in these situations.

8.5 Pre-mix the Vulkem 950NF or Vulkem 951NF base component, Part A to assure no settlement of the material is in the bottom of the pail and the color of the material is consistent with no streaks or striations. Open, mix and use one pail at a time.

Empty contents of the curative, Part B into the base, Part A. Using a jiffler type blade and slow speed drill, carefully mix the two components for 3 minutes, scrape down the sides of the pail, mix an additional 1-2 minutes. Use care to not incorporate air into the product.

For Heavy Duty Applications: Allow the first coat of the Vulkem NF Topcoat to cure a minimum of 6 hours up to 24 hours prior to applying a second coat. Repeat.

Vulkem 950NF or Vulkem 951NF topcoats are applied with a medium nap roller at the rate of 125 sq. ft./gal (3.2sq.m/L) to yield approximately 12 wet mils (0.30mm) thickness over the cured Vulkem 360NF. Remove excess material from the roller by using a screen in the pail to avoid puddles or ponding of the material. Broadcast 15-18 lbs. of 30-40 as sold by Best Sand or equivalent mesh silica sand per gallon (0.5kg/L) immediately into the wet topcoat and back roll with a pre-wetted roller to evenly distribute the aggregate.

Allow the system to cure 12 hours prior to foot traffic and 24 hours prior to vehicular traffic.

Consult your Tremco Technical Service Representative for specific design requirements.

## 9. SLIP RESISTANCE

The non-slip properties of the finished deck coating system is determined by the applicator. We suggest installing a test patch and obtaining customer acceptance.

## 10. CLEAN UP

10.1 Clean all adjacent areas to remove any stains or spills with MEK, Toluene or Xylene.

10.2 Clean tools or equipment with MEK, Toluene, or Xylene before materials cure.

10.3 Clean hands by soaking in hot, soapy water then brush with a stiff bristle brush.

## 11. USAGE

The following is a guide to estimate material usage:

DYMERIC 240FC. For a one inch (25.4mm) cant bead over a 1/4 inch (6mm) backer rod, 1 gallon of sealant for every 20 linear feet is required (1 liter for 8 meters).

VULKEM 360NF COATING. Apply at a rate of 64 square feet per gallon (1.57m<sup>2</sup>/L) for a wet mil thickness of 25 mils (.64mm) for vehicular application. A detail coat which extends 4 inches (10.2cm) on the horizontal deck requires 1 gallon of coating for every 90 linear feet (1 liter for 7.3 meters). A detail coating (6 inches x 25 mils) (15.2cm x 0.64mm) over a crack requires 1 gallon of coating for every 120 linear feet (1 liter for 9.7 meters)

VULKEM 950NF OR VULKEM 951NF TOPCOAT. Apply at a thickness of 12 mils (0.30mm). \*NOTE: Second coat may yield less coverage compared to initial due to increased surface area caused by impregnated sand.



## Vulkem® 950NF & 951NF Topcoats

### Neighbor Friendly - Low Odor/Low V.O.C. Topcoats for Pedestrian and Vehicular Applications

#### Product Description

Vulkem® 950NF and 951NF Topcoats are high-performance, Neighbor-Friendly, two-part polyurethane coatings for vehicular (heavy duty) and pedestrian (medium duty) application where low odor and extremely durable coatings are desired. These topcoats are applied over a cured Vulkem basecoat.

Vulkem 950NF Topcoat can be used both as an intermediate coat for the Tremco heavy duty system and a topcoat for interior applications. Vulkem 951NF is a low-odor topcoat designed for exterior applications and for use over Vulkem 950NF in heavy duty applications.

The recommended basecoat for use with Vulkem 950NF and Vulkem 951NF is Vulkem 360NF. Vulkem 360NF is a low odor V.O.C. compliant, water-cured, rapid-setting polyurethane basecoat that possesses tenacious adhesion to clean dry concrete, wood and metal.

\*Vulkem 350 may also be used. Consult your local sales representative.

#### Basic Uses

Medium Duty applications consist of a 25-mil coat of Vulkem 360NF and a 12-mil coat of one of the Vulkem NF topcoats with backrolled aggregate. This deck coating system is designed for waterproofing plaza decks, pool/recreation decks, balconies, mechanical rooms, stadiums, parking stalls, plywood decks and similar applications requiring an elastomeric waterproofing system.

Heavy Duty applications consist of a 25-mil coat of Vulkem 360NF and two 12-mil coats of one of the Vulkem NF topcoats with backrolled aggregate. This deck coating system is a cold applied vehicular traffic deck coating system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. Additionally, the system will protect concrete from damaging effects of water deicing salts, chemicals, gasoline, oils and antifreeze.

#### Features

- Low odor
- Quick turnaround time
- Extremely tough topcoats
- Reduced number of coats for both the medium and heavy duty system.
- Topcoats need only 24 hours cure prior to vehicular traffic, 12 hours cure prior to foot traffic.

#### Limitations

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

#### Color

Vulkem 950NF or Vulkem 951NF topcoats are available in Gray, Slate Gray or Beige. Vulkem 951NF also comes in Clear (pedestrian only) and Black. Other colors are available via special order.

#### Packaging

Vulkem 360NF basecoat- 5 U.S. Gallons (18.9 L) in an Imperial 5 gallon (22.7 L) pail.

Vulkem 950NF Topcoat - Total of 4.2 gallon kit - Part A 3.25 Gallons (12.3 L) in a 5 Gallon (18.9 L) Pail, Part B .95 Gallons (3.6 L).

Vulkem 951NF Topcoat - Total of 4.6 gallon kit - Part A 3.75 Gallons (14.2 L) in a 5 Gallon (18.9 L) Pail, Part B .85 Gallons (3.2 L).

#### Applicable Standards

Conforms to ASTM C957.

#### Installation

Concrete shall be water cured and in place for at least 14 days, preferably 28 days. Concrete finish shall be a light steel trowel followed by a fine hair broom finish, or equivalent finish.

New or existing slabs must be dry, clean, sound and free of all contaminants which may interfere with adhesion or proper curing. Chemical and/or mechanical surfaces preparation may be required. Refer to Vulkem 360NF/950NF/ 951NF Application Instructions for specific application details. For specialty applications such as fountains, roof decks, tennis courts and others, visit [www.tremcosealants.com](http://www.tremcosealants.com). The Techniques may require modifications to adjust to the job-site conditions. Consult your Tremco Technical Service Representative or Field Representative for specific design requirements.

Note: For installation of 951NF - Clear, please refer to the Color-quartz application instructions for Vulkem 951NF - Clear.

#### Availability

Immediately available from your local Tremco Field Representative, Tremco Distributor or Tremco Warehouse.

#### Warranty

Tremco warrants its Vulkem Coatings 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 Vulkem Coating's. Tremco's sole obligation shall be, at its option, to replace, or refund the purchase of the quantity of Vulkem coating proved to be defective and Tremco shall not be liable for any loss or damage.

## TYPICAL PHYSICAL PROPERTIES

Property	Test Method	360 NF Base Coat	950NF Top Coat	951NF Top Coat
Tensile	ASTM D-412	275 psi	4200 psi	5000+ psi
Elongation	ASTM D-412	500%	100%	260%
100% Modulus	ASTM D-412	130 psi	N/A	N/A
Hardness	ASTM C-661	40-50 Shore A	75 Shore D	50 Shore D
Permeability	E-96	0.12 metric perms	N/A	N/A
Viscosity, cps	Brookfield HBT	8-10,000	2000	2500
Cure Time at 77° F, 50% R.H.	ASTM D-1640	6 hrs. min.	24 hours, traffic	24 hours, traffic
Solids Content	ASTM C-792	>90%	99+%	>98%
Crack Bridging	N/A	1/8"	N/A	N/A
Tear Strength, psi	ASTM D-642	60-80	N/A	N/A
Peel Strength to Base Coat	N/A	N/A	100% c.f.	100% c.f.
Peel Strength, pli (concrete)	ASTM C-794	40-45	Concrete Fail.	N/A
Peel Strength, pli (plywood)	ASTM C-794	35-40	N/A	N/A
Peel-off Adhesion	ASTM D4541	350psi	N/A	N/A
Abrasion Resistance	120 psi cycles	N/A	100,000	100,000
Abrasion Loss (1000 cycles)	AST D4060	N/A	N/A	33mgms



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Vulkem® 360/950/951NF

Vulkem® 350/351

Vulkem® 350/345/346 \*



BLACK



BLACK



BLACK



MAPLE



MAPLE



MAPLE



BEIGE



BEIGE



BEIGE



SLATE GRAY



SLATE GRAY



SLATE GRAY



GRAY



GRAY



GRAY



LIMESTONE



LIMESTONE



LIMESTONE

WHITE

WHITE

WHITE

\* colors indicated are for Vulkem 346

Vulkem® 801



ALUMINUM FLECK

CLEAR (Vulkem 951NF only)

- Color deposits shown here are approximate and may not reflect sheen or shade precisely as varied amounts of aggregate added will alter light-reflecting properties. Tremco always recommends a test-patch be done to gain final color approval.
- Custom colors available. Minimum quantities apply.

This guide only offers a general representation of our color offering. Colors viewed on a computer screen or printed will vary and will never be an exact representation of the actual pigment. When matching is critical, please refer to our color card or sample color strips.