



# Application Instruction

## Vulkem® 360NF/951NF

### Vulkem Low VOC Deck Coating System

#### 1. Purpose

1.1 The purpose of this document is to establish uniform procedures for applying the Vulkem® 360NF/951NF LOW VOC 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® 360NF/951NF LOW VOC 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 fine hair broom or equivalent 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, laitance and other contaminants 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 3mm wide shall be ground out to a minimum of 6mm x 12mm deep.

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® Non Porous Primer.

3.7 Surface shall be made free of defects which may telegraph and show through the finished coating. Repaired areas must be primed with TREMproof®200EC or Vulkem Primer 171.

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 At any point where the coating will terminate in an area subject to traffic, cut 6mm x 6mm keyway and terminate the coating into the keyway.

3.10 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. Consult your Tremco Representative.

#### 4. Conditions for wood surfaces

4.1 Wood must be 19mm, exterior grade plywood. "A" side up and well fastened with screws & glue with proper consideration given to joints and movement.

4.2 Wood surfaces must be primed with Vulkem® Primer 171. Allow primer to dry 1 hour before proceeding.



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## 5. Special Surfaces

5.1 Vulkem® 360NF/951NF requires TREMprime Non-Porous Primer on metal surfaces. Lap joints must be sealed with Dymonic NT 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:

**DYMONIC NT:** A single-part moisture curing, gun grade polyurethane sealant for use in sealing cracks, expansion joints, control joints and forming fillets.

**VULKEM® 360NF COATING:** A low odour, VOC compliant water cured, rapid setting polyurethane base coat that possesses tenacious adhesion to clean and dry concrete, wood and metal. It is a versatile basecoat that can be applied at various thicknesses.

**VULKEM® 951NF COATING:** A high performance, Neighbour Friendly, two-part polyurethane coating for vehicular and pedestrian application where low odour and extremely durable coatings are desired.

**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.

**TREMPROOF® 200EC:** A two-part, low VOC water based epoxy primer for concrete surfaces.

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

**BACKER ROD:** A closed cell polyurethane back up material used in expansion joints, to control the depth of the sealant.

**AGGREGATE:** Silica sand or alumina oxide which imparts the non-slip texture and contributes to wear resistance.

Note: Aggregate size needs to be determined by client. Refer to the project manager for your specific job requirements.

## 7. Detail Work

**Note: Do not apply sealant or coatings to a frosty, damp or wet surface or when air temperature is falling or below 5°C or the surface temperature is above 40°C. Cure times as stated below are based upon standard ambient conditions of 25°C, 50% relative humidity. A decrease in ambient temperature will significantly lengthen the cure time. In cold temperatures less than 10°C contact your local Tremco Representative.**

7.2 At horizontal and vertical surface junctures (such as: curbs, wall sections, columns or penetrations through deck) apply a 10mm bead of Dymonic NT. Tool the sealant bead to form a 45° fillet. Use sufficient pressure to force out any entrapped air and to ensure complete wetting of the surface. Remove excess sealant from the deck or wall surface.

7.3 Preparing expansion joints, install a Backer Rod, 3mm to 6mm diameter larger than the joint width to all prepared expansion joints. Set depth of Baker 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 6mm to 12mm wide, the width to depth ratio should be equal. Joints 12mm wide or greater should have a sealant depth of 12mm. Minimum joint size is 6mm by 6mm.

7.4 All cracks and joints shall be sealed with Dymonic NT sealant, and tooled flush with the surface.

7.5 Allow Dymonic NT sealant to cure overnight.

7.6 To provide a neat termination of the vertical detail coat, apply a strip of tape (masking tape or duct tape) to vertical sections, above the Dymonic NT sealant fillet, prior to sealant application.



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7.7 Apply a 0.75mm thick detail coat of Vulkem® 360NF, 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 joints should not be coated over.**

## 8. Primer Application

8.1 Using TREMproof®200EC premix each component separately with a mechanical mixer.

8.2 Mix the two components together in equal parts by volume for a minimum of 5 minutes until homogeneous.

8.3 Avoid trapping air in mixture as this can cause pinholing in the coating.

8.4 On porous surfaces mixed material can be diluted with 10% water for the first coat only.

8.5 Apply with brush or roller and work into surface to eliminate pinholing.

8.6 Allow the 1st coat to cure for 4 hours at 25°C/50%RH. Apply a 2nd coat at 90° to the 1st coat. (Normally one coat required)

8.7 TREMproof®200EC cure rates dramatically slow at temperatures below 10°C. At cold temperatures refer to individual data sheet or contact your local Tremco Representative.

## 9. Coating applications—Vulkem® 360NF (Basecoat)

9.1 Thoroughly mix Vulkem® 360NF prior to adding water. Thoroughly mix a part of Vulkem® 360NF with 1 part of water (by volume).

9.2 Vulkem® 360NF Basecoat is normally applied at the rate of 1.22—1.47m<sup>2</sup>/litre yielding approximately 0.64 to 0.76mm thickness. The coating is squeegee applied, followed by back rolling to evenly distribute the material.

9.3a Allow Vulkem® 360NF to cure a minimum 6 hours and a maximum of 24 hours at 25°C, 50% relative humidity.

## 10. Coating applications—Vulkem® 951NF (Topcoat)

10.1 Ensure adequate, thorough ventilation during and after application to ensure proper film formation

10.2 Vulkem® 360NF should have a slightly tacky surface to aid adhesion of Vulkem 951NF. If the surface has been exposed for more than 24 hours it should be cleaned and prime coated with Vulkem Primer 191. Contact your local Tremco Representative in this situation.

10.3 Premix Vulkem® 951NF base component, Part A, to ensure no settlement and consistent colour

10.4 Empty contents of curative, Part B into Part A. With a low speed electric mixer, mix components for 3 minutes, scrape the sides of the drum and mix for a further 2 minutes

10.5 Take care not to entrap air into the mixture. Mix and use one pail at a time

10.6 Apply Vulkem® 951NF at 3.2m<sup>2</sup>/litre (0.325mm wet film thickness).

10.7 For a non slip finish broadcast sand or aluminium oxide into wet surface and back roll

10.8 For heavy duty applications allow the first coat of Vulkem® 951NF to cure for 6—24 hours prior to applying the second coat

10.9 Allow the system to cure for 12 hours prior to foot traffic and 24—48 hours for vehicular traffic (25°C and 50% RH). Refer to Tremco Technical Representative for specific project details.

## 11. Slip Resistance

The non-slip properties of the finished deck coating system is determined by the application. *Tremco suggest installing a test patch and obtaining customer acceptance prior to commencing project.*



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## 12. Clean Up

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

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

12.3 Clean hands by soaking in hot, soapy water then brush with a stiff bristle brush or alternatively use Tremco Tub-O-Towels to clean hands.

12.4 TREMproof® 200EC can be cleaned with water before hardening.

## 13. Usage

The following is a guide to estimate material usage:

DYMONIC NT: Approximately 6 lm/600ml sausage for a 10mm x 10m joint

VULKEM® 360NF COATING: Application at a rate of 1.22—1.47m<sup>2</sup>/litre yielding approximately 0.64 to 0.76mm wet film thickness.

VULKEM® 951NF TOPCOAT: Application at a rate of 3.2m<sup>2</sup>/litre.

TREMPROOF® 200EC: Application rate of 5m<sup>2</sup>/litre/coat.

VULKEM® PRIMER 171: Application rate of 8-10m<sup>2</sup>/litre for dense surfaces, 2-4m<sup>2</sup>/litre for porous surface.

VULKEM® PRIMER 191: Application rate of 30-40m<sup>2</sup>/litre.



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