

## Novolac

### **Description:**

Terroxy Novolac is a two-component, chemical and heat resistant novolac epoxy resin. It may be used directly over primed substrates or as a topcoat for Terroxy Systems. Terroxy Novolac epoxy boasts the best wearing, chemical, impact, and abrasion resistance of the Terroxy epoxy products. This is due to its advanced, highly functional novolac epoxy chemistry. Available in standard colors. \*Novolacs by nature are more prone to amber more and quicker than traditional epoxies when exposed to UV light.

### **Product Benefits:**

- Best in class chemical and stain resistant
- Impact and abrasion resistant
- Durable and easy to clean
- V.O.C. compliant in all states
- Available in standard colors
- Heat Resistant to 275°F

### **Typical Applications:**

- Novolac should be used in areas where a superb performance epoxy system is required.
- Extreme Environmental Conditions
- Kitchens, Restaurants & Cafeterias
- Chemical or Industrial Plants
- Battery Handling or High Acid Exposure Locations
- Pharmaceutical Facilities & Laboratories

### **Coverage:**

Terroxy Novolac can be applied to a variety of substrates given that the surface is properly prepared. Typical coverage is 50 -200 ft<sup>2</sup> (4.6 - 18.6 m<sup>2</sup>) per blended gallon (10 - 30 mils).

Two applications of Novolac may be required to adequately seal and fill surface imperfections and protect against off gassing. This can be accomplished by applying a second coat in opposite direction to the first.

### **Concrete Substrate Preparation:**

Terroxy Novolac can be applied to a variety of substrates given that the surface is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate.

1. Concrete slab shall have an efficient moisture/vapor barrier (suggested minimum: 15 mils / 0.4mm thickness) directly under the concrete slab.
2. Allow substrate to cure a minimum of 28 days.
3. Sub-floor should be level - maximum variation not to exceed 1/4" in 10 ft (6.35 mm in 3 m).
4. The recommended preparation method is shot blasting.
5. Surface to receive Terroxy Novolac should have a steel trowel finish.
6. Substrate should not been treated with a curing agent as this may prevent bonding. If curing agent present, surface must be shot blasted.

For complete guidelines refer to Resinous Flooring Concrete Surface Preparation(RFCSP)

## **Installation Instructions**

### **Mixing:**

Premix Novolac using a low speed drill and mixing paddle. Mix for one minute and until uniform, exercising caution not to introduce air into the material. Add 2 parts Novolac Part A to 1 part Novolac Part B by volume. Mix with low speed drill and mixing paddle for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

**Application:**

Apply Novolac using a squeegee or trowel and back roll with a 3/8" nap roller at a spread rate of 50-200 ft<sup>2</sup> (4.6 - 18.6 m<sup>2</sup>) per blended gallon to yield 10-30 mils (250-750 microns) making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

**Limitation:**

Slab on grade requires vapor/moisture barrier. Do not thin this product. Solvents may prevent proper curing. Substrate temperatures should be 50°F (10°C) minimum and rising. For best results, material should be maintained and stored at temperatures between 65 - 75°F (18 - 24°C) prior to and during application. Minimum age of concrete - 28 days. Concrete or masonry must be tested for water-vapor transmission prior to application. Tolerates Moisture Vapor Emissions up to 80% relative humidity as measured by ASTM F 2170. If over apply IC Moisture Guard per T&M's written instructions. Do not use in expansion joints (moving joints).

**Cure Time:**

Allow to cure overnight (a minimum of 24 hours) at 75°F (23.8°C) surface temperature before opening to traffic. Material cures more slowly at lower temperatures.

**Technical Data:**

Property	Method	Results
Flexural Strength	ASTM D-790	12,000 psi (83.2 MPa)
Abrasion Resistance	ASTM D-4060 C-S17 Wheel 1000 Cycles	100 mg loss
Flammability	ASTM D-635	Self-extinguishing over concrete
Fungus & Bacteria Resistance	MIL-F 52505 S4.4.2.11	Will not support growth of fungus or bacteria when subjected to mildew and bacteria tests specified in TT-P.34
Hardness	ASTM D-2240, Shore D	75-85
Adhesion	ACI 503R / ASTM C-1583	300 psi (100% concrete failure) (2.07 MPa)
Compressive Strength	ASTM C-579, Cured at 7 Days	14,500 psi minimum (100 MPa)
Tensile Strength	ASTM C-307	2,000 psi minimum (13.8 MPa)
Thermal Shock Resistance	ASTM C-501	Passes
Thermal Coefficient of Expansion	ASTM C-531	25 x 10 <sup>-4</sup> inches per inch/degrees Fahrenheit maximum
Impact Resistance	MIL-D-3134J	Direct, inch pound greater than 160, passes; Reverse, inch pound greater than 80, passes
Chemical Resistance	ASTM D-1308	No deleterious effects when exposed to: <ul style="list-style-type: none"> <li>• Distilled Water</li> <li>• Salt Water</li> <li>• Diesel Fuel, Crude Oil, Gasoline, Hydraulic Fluid, Skydrol</li> <li>• 20% Acetic Acid, 24hrs 56% &amp; 84%, 1hr Glacial</li> <li>• 5% Ammonium Hydroxide</li> <li>• 36% Hydrochloric Acid</li> <li>• 5% Tri-sodium Phosphate</li> <li>• 10% Nitric Acid</li> <li>• 50% Citric Acid</li> <li>• 98% Sulfuric Acid</li> <li>• 50% Sodium Hydroxide</li> <li>• 1hr Acetone, Methyl Ethyl Ketone</li> <li>• Fatty Acids, Lactic Acid, Urine</li> <li>• Toluene, Xylene</li> </ul>

## Clean Up

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents

## Maintenance:

After completing the application of Terroxy Novolac, the installer should provide the owner with proper maintenance instructions. If the floors become slippery due to animal fats, oil, grease, soap or other topical residue, promptly remove contaminants and rinse thoroughly.

Terroxy Novolac is easily cleaned with neutral pH cleaners or detergents. Routine hand scrubbing is recommended for all surfaces having a slip resistant texture.

## Technical Service:

Terrazzo & Marble Supply Companies, distributor of Terroxy Resin Systems, provides services and consultations on material selection, specifications and troubleshooting concerning proper thin-set epoxy terrazzo installation. Contact our **Terrazzo Sales Desk at 800.7.MARBLE** or **T&M Technical Department at 708.385.6633** for questions or assistance.

## Precautions:

Refer to cautionary information printed on the product container. For medical emergencies, contact Chemtrec, the Chemical Emergency Transportation Center, at 800.424.9300.

## Warranty:

Terrazzo & Marble Supply Companies warrants for a period of one (1) year that Terroxy Novolac will be free of manufacturing defects and will conform to published specification when handled, stored, mixed and applied in accordance to recommendations of Terrazzo & Marble. If Terroxy Novolac fails to meet this warranty, the liability of Terrazzo & Marble will be limited to replacement of any non-conforming Terroxy Novolac only if notice of such non-conformity is given to Terrazzo & Marble within one (1) year from the delivery of materials. Terrazzo & Marble may, according to its discretion, refund the price received by Terrazzo & Marble in lieu of replacing the Terroxy Novolac. No customer, distributor or representative of Terrazzo & Marble is authorized to change or modify the published specification of this warranty in any way. No one is authorized to make oral warranties on behalf of Terrazzo & Marble. In order to obtain replacement or refund, the customer must provide written notice containing full details of the nonconformity. Terrazzo & Marble reserves the right to inspect the non-conforming Terroxy Novolac prior to replacement. Except for the expressed warranty stated above, there is no other warranties, expressed or implied, including without limitation, implied warranty of merchantability or fitness for purpose. Terrazzo & Marble's obligation shall not extend beyond the obligations expressly undertaken above and Terrazzo & Marble shall have no liability or responsibility to the purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages.

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