

Industrial ESD Coating

Description:

Terroxy Industrial ESD Coating is a two-component, self-leveling, static dissipative epoxy resin. It may be used directly over substrates primed with Terroxy Primer or Terroxy IC Moisture Guard. Industrial ESD Coating is extremely hard wearing, chemical resistant, impact and abrasion resistant. Industrial ESD Coating provides electrical resistance readings between the range of 1 million to 1 billion ($10^6 - 10^9$) ohms (ANSI/ESD STM7.1-2020) which last throughout the lifetime of the floor. Terroxy Industrial ESD Coating is available in a variety of colors.

Product Benefits:

- ANSI/ESD S20.20-2021 compliant
- Chemical and stain resistant
- Impact and abrasion resistant
- Durable and easy to clean
- Available in multiple colors
- V.O.C. compliant in all states

Typical Applications:

- Electronics Manufacturing/Assembly
- Clean Rooms
- Server Farms
- Laboratories
- Pharmaceutical
- Processing Areas
- Spaces with instrumentation susceptible to electrostatic discharge

Coverage:

Terroxy Industrial ESD Coating can be applied to a variety of substrates given that the surface is properly prepared. Typical coverage is 80-110 ft² (7.4 - 10.2 m²) per blended gallon (15 - 20 mils).

Concrete Substrate Preparation:

Terroxy Industrial ESD Coating 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 Industrial ESD Coating should have a steel trowel finish.
6. Substrate should not be treated with a curing agent as this may prevent bonding. If curing agent present, surface must be shot blasted.

For specific preparation guidelines contact your T&M representative.

Installation Instructions

Mixing:

Premix Industrial ESD Coating Part A 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 Industrial ESD Coating Part A to 1 part Industrial ESD Coating 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 Industrial ESD Coating using a squeegee or trowel and back roll with a 3/8" nap roller at a spread rate of 80-110 ft² (7.4 - 10.2 m²) per blended gallon to yield 15-20 mils (380-510 microns) making sure of uniform coverage. Take care not to puddle materials and ensure even coverage. For conductive, anti-slip, broadcast aggregate considerations, please contact your T&M technical representative.

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).

Industrial ESD Coating is not available in white. Industrial ESD Coating colors which are **not** on the grayscale will have slight shade variations when compared to the Terroxy Resinous color chart. This is due to the filler components of the resin which provides electrostatic discharge properties. Contact your T&M sales representative for any questions or samples concerning this.

Do not broadcast standard anti-slip aggregate (silica quartz, aluminum oxide, etc.) into Industrial ESD Coating; this will hinder and reduce the surface resistivity of the coating. Do not topcoat with any non-conductive coating such as 2K PU or 2K Polyaspartic or any non-conductive sealer; these also will diminish the surface resistivity of the coating.

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
Surface Resistivity	ANSI/ESD STM7.1-2020	1x10 ⁶ - 1x10 ⁹ ohms
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 ⁻⁶ 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"> •Distilled Water •Salt Water •20W Motor Oil •10% Acetic Acid •5% Ammonium Hydroxide •20% Hydrochloric Acid •5% Tri-sodium Phosphate •10% Nitric Acid (slight stain) •50% Citric Acid •10% Sulfuric Acid •10% Sodium Hydroxide •Sodium Chloride •Fatty Acid •Cola Syrup

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 Industrial ESD Coating, 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 Industrial ESD Coating 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 Industrial ESD Coating 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 Industrial ESD Coating fails to meet this warranty, the liability of Terrazzo & Marble will be limited to replacement of any non-conforming Terroxy Industrial ESD Coating 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 Industrial ESD Coating. 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 Industrial ESD Coating 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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