

LEVELGUARD™ ESD

PRODUCT TECHNICAL DATA SHEET



Resinwerks LevelGuard ESD is a 100% solids, VOC-free epoxy coating engineered to provide durable flooring protection with permanent static dissipative performance. Fortified with advanced carbon nanotube technology, it forms a continuous conductive network throughout the cured film, creating a reliable ESD ground plane. Available in pigmented formulations, LevelGuard ESD can be installed as a standalone system or paired with the Resinwerks HDC-100™ ESD Urethane Finish Coat for enhanced performance and aesthetics.

USES:

- » Electronics Manufacturing
- » Clean Rooms
- » Data Centers
- » Server Rooms
- » Laboratories

ADVANTAGES:

- » Static Dissipative
- » VOC-Free
- » Excellent film quality
- » Stain resistant
- » Self-leveling

PACKAGING & SHELF-LIFE

LevelGuard ESD available as follows:

- » 3-gallon kits: (2) 1-gallon part A + 1-gallon part B
- » 15-gallon kits: (2) 5-gallon part A + 5-gallon part B

Shelf-Life::

- » 12-months factory sealed and stored at room temperature.

SUGGESTED APPLICATION:

Suitable Substrate(s): Concrete

- » Apply at 130 sq.ft. Per mixed gallon with a notched squeegee. Yield: 12 mils DFT
- » Please note that excessive film thickness may inhibit static dissipative properties.

ELECTRICAL RESISTANCE- ASTM F150-89

MEASUREMENT LOCATION	RESISTANCE (OHMS)
1.	1.35e+5
2.	1.45e+5
3.	1.87e+5
4.	2.12e+5

GENERAL PRODUCT INFORMATION

Color:	Smoke (Medium) Grey or Flint (Dark) Grey
Solids Volume:	100%
V.O.C.:	0 grams per liter
Pot-life:	25 mins. @ 72° F
Mix-Ratio:	2-Parts A to 1-Part B by volume
Application Temp:	55-90°F
Cure Schedule:	72° F @ 50% R.H.
Tack-Free:	4-6 hours
To re-coat:	Let fully Cure minimum 8-hours. Recoat within 24 -hours
Clean-up:	Acetone / MEK

GENERAL PRODUCT PERFORMANCE

TEST TYPE	TEST METHOD	RESULT
Adhesion	ASTMD 4541	500+ PSI concrete fracture
Compressive Strength	ASTMC 695	9,250 PSI
Water Absorption	ASTMD 570	< .1%
Adhesion Pull-Off	ASTMD 4541	+500 PSI concrete fracture
Elongation / Tensile	ASTMD 307	1200 psi
Flexural Strength	ASTMC 580	2500 psi
Impact Resistance	ASTMD 2794	> 160

ESD ELECTRICAL PERFORMANCE - FULL SYSTEM (includes primer + HDC-100™ Topcoat)

ESD PERFORMANCE	SYSTEM MEASURED RANGE	CLASSIFICATION	STANDARD
Resistance to Ground-able Point	$8.0 \times 10^6 - 6.0 \times 10^7 \Omega$	Static Dissipative	ANSI/ESD STM71 / ASTM F150
S20.20 Program Requirement	$< 1.0 \times 10^9 \Omega$	✓ Pass	ANSI/ESD S20.20-2021
Body Voltage Generation (walking)	< 100 V peak	✓ Compliant	ANSI/ESD STM97.2
RTG Test Voltage Applied	100 VDC	Dissipative range	ASTM F150 / STM71

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100% Solids Electro-Static Dissipative Epoxy

ESD APPLICABLE STANDARDS - FULL SYSTEM (includes primer + HDC-100™ Topcoat)

Standard	Description	Status
ANSI/ESD S20.20-2021	ESD Control Program Standard. RTG < 10 ⁹ Ω; body voltage < 100 V.	✓ Compliant
ANSI/ESD STM7.1	Floor resistive characterization — RTG and RPP test methodology.	✓ Applied
ASTM F150	Electrical resistance — resilient flooring. Dissipative: 10 ⁶ – 10 ⁹ Ω.	✓ Confirmed

IMPORTANT NOTICE:

This product is not designed for use in conductive coating systems and is **not intended for environments exposed to explosive media, such as ammunition manufacturing facilities.** LevelGuard ESD Primer is formulated solely as a static-dissipative coating.

Before installation, review the Electrical Resistance data provided on the front of this Technical Data Sheet to ensure compatibility with your specific requirements. Do not apply waxes unless they are specifically formulated and approved for anti-static applications.

Always conduct a test application to verify conductivity and to become familiar with the proper installation procedure before proceeding with full-scale application.

ESD GROUNDING

- » Grounding stripes should be installed following primer application and prior to the installation of LevelGuard ESD. **Please reference Resinwerks ESD Grounding Field Guide for detailed grounding guidelines.**

MIXING INSTRUCTIONS

- » Prior to mixing, all products should be properly acclimated to the local ambient room temperature of 55°F - 90°F. Thoroughly agitate part A and Part B separately prior to mixing. Mix 2-parts A to 1-Part B by volume for two minutes using a slow speed jiffy mixer.

APPLICATION INSTRUCTIONS

- » Once grounding is established, apply LevelGuard ESD over a primed surface using a notched squeegee at a rate of 12 mils or 130 Sq. Ft./mixed gallon. Maintain ambient and substrate temperatures within the recommended ranges throughout application and curing.
- » Avoid excessive thickness, as this may result in reduced conductivity or blistering, potentially leading to product failure.
- » Allow adequate curing time before proceeding.

RE-COATING OR TOP-COATING

Before applying any re-coat or topcoat, ensure that material has fully cured and is acceptable for foot traffic. Colder temperatures will extend the required cure time. Inspect the cured surface for epoxy blush—a whitish, greasy film or loss of gloss. If blush is present, it must be completely removed prior to re-coating or top coating.

Please note that only one coat of an anti-static topcoat is recommended over the conductive primer. Adequate leakage resistance should be less than 10⁹ ohms when measured at 500 volts in accordance with ASTM F150-89. When applied in conjunction with this primer series, typical conductive properties for topcoats range from 10⁵ to 10⁹ ohms over concrete at 500 volts per ASTM F150-89.

LIMITATIONS

- » Do Not Freeze
- » Do not apply over concrete experiencing ASR
- » Do not apply to new slabs < 28-days old
- » Do not apply to concrete < 3500 PSI compression strength
- » Do not apply product when ambient or room temperature is below

55°F or over 90°F or if the relative ambient humidity is above 85%.

- » Do not apply the topcoat until the electrical resistance measures 1×10⁷ ohms or lower. In some cases, up to 24 hours may be required to achieve proper conductivity—always test before top coating. This product is intended for use by professional installers experienced with conductive and static-dissipative coating systems.
- » DEW POINT: Do not apply when dew point is within 5°F of the ambient temperature.

MAINTENANCE

Thoroughly read all Material Safety Data Sheets prior to use and maintain copies on job-site at all times.

The long-term performance, appearance, and life expectancy of wear surface products are dependent on an adequate routine maintenance program designed specifically for the installed wear surface. Resinous floor coating systems are nonporous, causing dirt and contaminants to remain on the surface. Recommended maintenance programs consist of frequent and thorough cleaning utilizing a neutral PH cleaner. The frequency of washing will vary depending on floor usage type, traffic and age. Please contact your local Resinwerks technical representative for more information.

NOTICE & DISCLAIMER:

Anti-static flooring will not protect against electrical discharges from power mains. Follow all applicable electrical safety regulations. Product performance depends on proper application and site conditions; verify anti-static properties after installation and periodically thereafter. No express or implied warranties, including merchantability or fitness for a particular purpose, are made. Liability is limited to the net selling price or replacement of the product, at our option. We are not responsible for incidental or consequential damages. Before use, read the Safety Data Sheet (SDS) and follow all safety precautions.

Variability in job site conditions (including but not limited to surface preparation, sunlight, humidity, dew point, temperature, etc.) during application of Epoxy products may lead to fish-eyes, blistering, pinholes, wrinkling, or out-gassing of air in the concrete and are not product defects.

TECHNICAL ASSISTANCE

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