ELECTRAGUARD ESD EPOXY SPECIFICATIONS
Mission Critical Conductive Floor Paint

PRODUCT HISTORY AND OVERVIEW: Our ElectraGuard ESD Epoxy was originally designed for use in providing static control for munitions applications in 1992. Over the years it has been further refined with patented advancements in structural integrity, conductivity and chemical resistance. ElectraGuard is a proven performer at a realistic price. ElectraGuard is a true two part epoxy. Unlike mere latex or one part epoxy floor paints that may last a year or two, our ElectraGuard High Gloss System provides outstanding longevity and a ten year life expectancy. The system is well suited for application on a variety of flooring substrates including concrete, existing well bonded VCT, standard and antistatic vinyl tiles, steel, vinyl sheet goods and wooden subfloors. ElectraGuard may be applied with a roller or with an airless paint sprayer making it an excellent choice for use on walls, ceilings, bench tops, equipment racks and more.

ElectraGuard ESD Epoxy meets or exceeds the latest most stringent standards for Mission Critical Static Control. And, unlike ESD tiles, ElectraGuard is seamless for the optimum removal of dust and powder contaminants. Tiles rely on a random pattern of conductive elements interspersed in an insulative vinyl and a conductive adhesive to bridge the gaps between the tiles. Unlike ESD tiles our ElectraGuard features an amorphous electrical conductivity for 100% conductive contact with footwear and superior static control performance. This same amorphous conductivity makes it an excellent choice for shielding as well as static control. Tiles become slippery when wet where as ElectraGuard features inherent anti-slip properties. The electrical conductivity may be tailored for compliance to the recent DOD 4145.26-M standards. Leave "as is" for a low glare matte finish or top coat with ElectraThane, ElectraGlaze or ElectraSheen Sapphire for a diamond like shine, ultimate wear resistance and an ESD floor that consistently meets the latest ANSI ESD S 20.20-2007 / 2014 standards without fail.

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PHYSICAL PROPERTIES

Gloss Unsealed: Matte Finish
Gloss Sealed: 88 Min ASTM D1455-82
Colors: Light Gray, Medium Gray, Beige, Emerald Green, Sky Blue and Charcoal Black
Slip Resistance per ASTM-D2047-5: 0.62 minimum (excellent)
Hardness: Shore 68
Viscosity: 400 to 600
Solvents in the formulation: Alcohol, water-glycol ether, VOC's when cured; 0
Flash point as a liquid: >212 deg. F
Liquid: Freeze / Thaw Stability: 0 - Do not freeze
Dry time with standard air flow: 8 hours (dry to the touch). Open for traffic in 12
Coverage: 350 to 600 square feet per gallon per coat
Compressive strength over vinyl tiles: Modified ASTM F 9700-00, >2,500
Compressive strength over concrete: DIN1691 equal to or greater than that of the concrete.
Indentation impact resistance per ASTM F1914: DIN EN average of <5%, max 10%
Abrasion resistance per ASTM D1044: SC10F wheel, 550 gm weight, cycles 10k, % loss 1.6
Resistance to wear: DIN EN660-1, M
Film thickness when dry: 1.1 mil per coat
Warranty: Life time electrical properties, 5 years wear (see details for specifics)
Resistance to chemicals: Good to excellent, see details.
Resistance to heat: ASTM 1514 Δ<8 average., max, <ΔE=2.0
Resistance to light: ASTM 1515 Δ<8 average., max, <ΔE=6.0
Fire resistance: DIN 4102, B1
Color fastness: ISO 105 BO2, >6
Critical radiant flux: ASTM E648, NFPA 253, >1.08 w/cm2 (class 1 interior floor finish, NFPA code 101
Shelf Life and Weight: 24 months, unopened at 70 deg. F, +/- 10 degrees. Weight: 10 Pounds Per Gallon.
Shipping: May be shipped Air Freight. Non Regulated, IEN 99-3A-3B, HTC 3209.90.0000

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ELECTRICAL PROPERTIES UNSEALED
(Static Conductive)

ITEM	STANDARD TEST METHOD	UNSEALED ELECTRAGUARD
Electrical Resistance, Surface to Surface (PTP)	ESD S 7.1 @ 100 V / 10 V, tested 12%rH and 45% rH	>1.0E04 <1.0E06
Electrical Resistance Surface to Ground (RTG)		>1.0E04 <1.0E06
Electrostatic Propensity	AATCC 134 With heel grounders	<20 volts
Static Decay	Federal Test Method 101B Method 4046 at 15% Relative Humidity	<0.5 sec
Combination resistance of technician, heel grounders and flooring	ANSI ESD S20.20-2007 97.1	<3.5E07 Ohms. PASS
Tribogeneration	ANSI ESD S20.20-2014, 97.2 / IEC 61340-4-5	Does not exceed 100 volts. (typical <10 volts +/- polarity)

ElectraGuard High Velocity (unsealed)

Color	Test Method	Results
Medium and Light Gray	DOD 4145-26-M, (March 13, 2008) tested at 500 Volts, RTG/PTP	> 40 kV and <1 Meg Ohm.
Medium and Light Gray	NFPA 484-2015, tested at 500 Volts, RTG/PTP	> 40 kV and <1 Meg Ohm.
Medium and Light Gray	ASTM F-150, tested at 500 Volts, RTG / PTP	> 40 kV and <1 Meg Ohm.
Black Ice	NFPA 484-2015, tested at 500 Volts, RTG/PTP	> 20 kV and <1 Meg Ohm.

Note: Resistance values may be easily adjusted upwards with an additional coat of ElectraThane to meet minimum DOD resistance levels for use in 240 volt applications

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ELECTRICAL PROPERTIES SEALED

Sealed with 2 coats of ElectraThane and One Coat of ElectraGlaze

ITEM	STANDARD TEST METHOD	SEALED ELECTRAGUARD
Electrical Resistance, Surface to Surface (PTP)	ESD S 7.1 @ 100 V / 10 V tested at 12% rH and 45%rH	>1.0E05 <1.0E07
Electrical Resistance Surface to Ground (RTG)		>1.0E05 <1.0E07
Combination resistance of technician, heel grounders and flooring	ANSI ESD S20.20-2007 97.1	<3.5E07 Ohms. PASS
Static Decay	Federal Test Method 101B Method 4046 at 15% Relative Humidity	< .3 sec
Tribogeneration	ANSI ESD S20.20-2014, 97.2	Does not exceed 100 volts. PASS

Note: Resistance values may be adjusted upwards with additional coats of ElectraThane to >1.0E06 and <1.0E09 (static dissipative).

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Typical Charge Generation

Floor Materials and Footwear

Charge Generation of Person in ESD Footwear

Testing per ANSI/ESD STM97.2 / ESD TR53 Flooring Section

Environmental Conditions: 38.7%rH, 78.9^{o} F (avg.) Areas 1 through 5

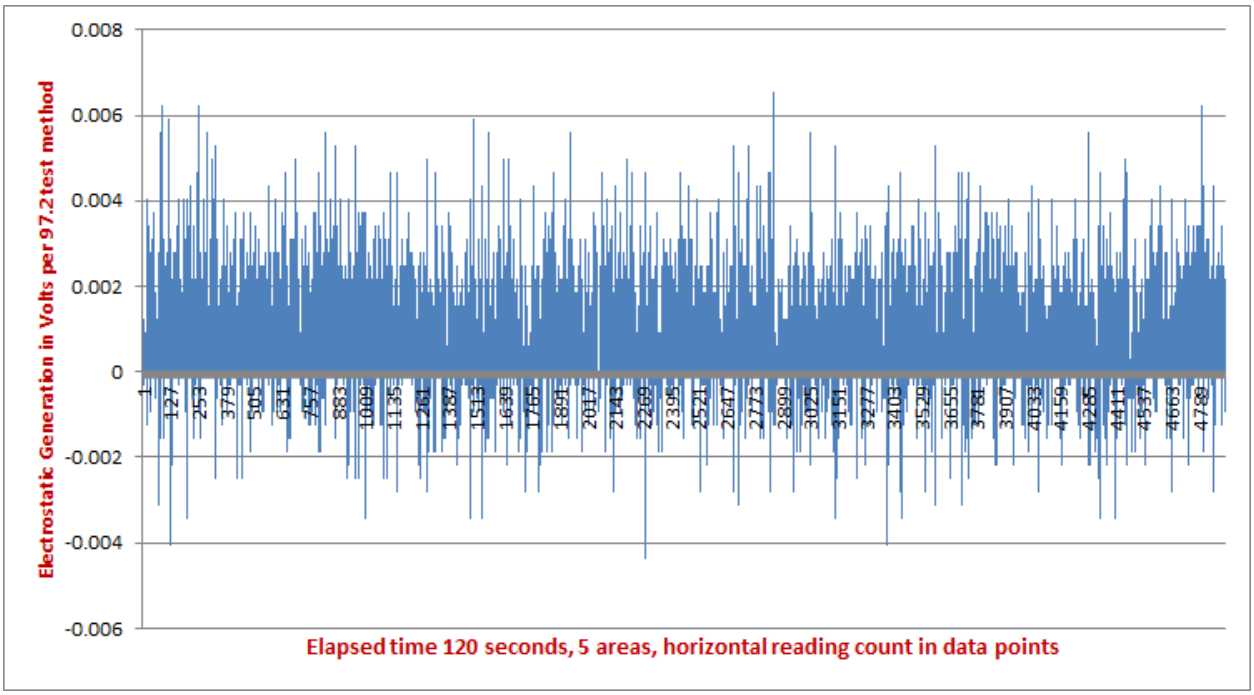
Devices used in this Testing: Monroe Charge Plate Analyzer, Oscilloscope, PC

NOTE: Device output is 1/1,000th the actual charge of the plate

Passing Range: Less than 100 Volts

Maximum Negative Voltage: (-) 4.37 **Maximum Positive Voltage: (+) 6.56**

Median Absolute Voltage: (+) 1.25 **Average Absolute Voltages: (+) 1.17**



ElectraGuard is Proudly Made in the U.S.A.