

Specifications: ElectraGuard High Velocity Thin Set ESD Epoxy



PRODUCT HISTORY AND OVERVIEW: Our ElectraGuard High Velocity 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 Velocity 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 High Velocity 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.

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PHYSICAL PROPERTIES

Gloss Unsealed: Matte Finish
Gloss Sealed: 88 Min ASTM D1455-82
Colors: Light Gray, Medium Gray, Black Ice, Beige, Emerald Green, Sky Blue
Slip Resistance per ASTM-D2047-5: 0.62 minimum (excellent)
Hardness: Shore 68
Viscosity: 400 to 600
Solvent: Alcohol, water-glycol ether
Flash point: >212 deg. F
Freeze / Thaw Stability: 0 - Do not freeze
Dry time at standard air flow: 8 hours (dry to the touch). Open for traffic in 12
Typical Coverage: 350 to 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: ASTM 925, DIN EN 423, slight change
Resistance to heat: ASTM 1514 $\Delta < 8$ average., max, $< \Delta E = 2.0$
Resistance to light: ASTM 1515 $\Delta < 8$ average., max, $< \Delta E = 6.0$
Fire resistance: DIN 4102, B1
Color fastness: ISO 105 B02, >6
Critical radiant flux: ASTM E648, NFPA 253, >1.08 w/cm ² (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 and fully cured

Color	Test Method	Results
Medium Gray, Light Gray, Black	DOD 4145-26-M, (March 13, 2008) tested at 500 Volts, RTG/PTP	> 10 kV and <1 Meg Ohm.
Medium Gray, Light Gray, Black	NFPA 484-2015, tested at 500 Volts, RTG/PTP	> 10 kV and <1 Meg Ohm.
Medium Gray, Light Gray, Black	ASTM F-150, tested at 10 Volts, RTG / PTP	> 40 kV and <1 Meg Ohm.
Static Decay	Federal Test Method 101B Method 4046 at 15% Relative Humidity	< .3 sec
Tribogeneration	ANSI ESD S20.20-2014, 97.2	< 100 volts. PASS

Note: Resistance values may be easily adjusted upwards with an additional coat of ElectraThane to meet DOD minimum resistance levels.

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Typical Charge Generation

Floor Materials and Footwear

Charge Generation of Person in ESD Footwear

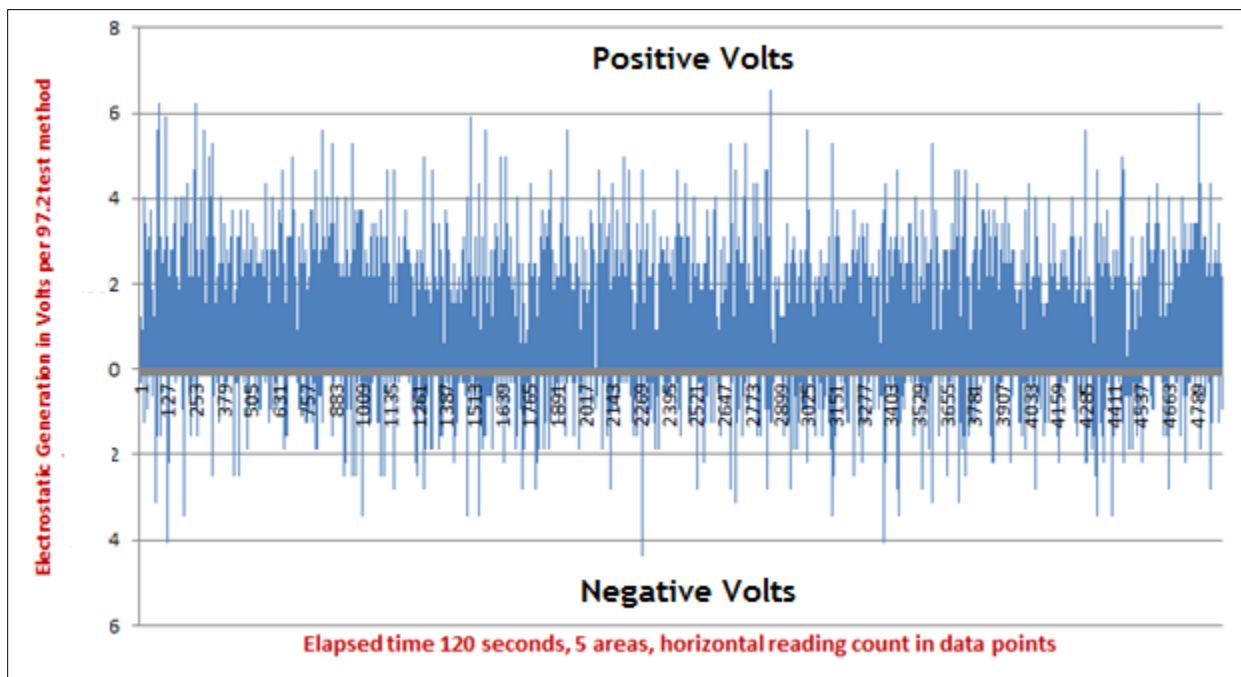
Testing per ANSI/ESD STM97.2 / ESD TR53 Flooring Section

Environmental Conditions: 38.7%rH, 78.9° F (avg.) Areas 1 through 5

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

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

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



Passing Range: Less than 100 Volts



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