

TD.633 – TECHNICAL DATA: E100-PESD™ Electrostatic Dissipative Epoxy

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Product Description:

E100-PESD™ is a 100% solids, pigmented static dissipative epoxy floor coating that is self-priming and provides static dissipative properties ($1.0 \times 10^6 - 1.0 \times 10^9 \Omega/\text{square (ohms)}$). E100-PESD™ provides an average of 5 V body voltage generation (tested wearing dissipative footwear). Relative indoor humidity is not a factor of ohm dissipative performance. Readings are consistent for the life of the floor. Unlike water-based ESD floors, which require increased maintenance, this floor coating was designed for heavy wear and chemical resistance requiring less maintenance.

Typical Uses:

- Electronics assembly
- Laboratories/clean rooms
- Packaging lines
- Pharmaceutical facilities
- Surgical and radiology facilities
- Warehouses and manufacturing

Key Features:

- Low maintenance
- Dissipates 5000 V charge in 0.01 seconds
- 100% solids (0% VOC)
- Excellent wear and stain resistance
- 5 V Avg. BVG with dissipative footwear
- If required, copper grounding strips may be used
- USDA and CFIA compliant

Physical Properties

| | | |
|--|---------------------------|---|
| Mix Ratio | | 2 to 1 by volume |
| Gel Time | ASTM C881 | 19 minutes |
| Colors | | Light gray, medium gray, dark gray & tan. (custom colors available) |
| Consistency | | Flowable |
| Compressive strength | ASTM D695 | 10,500 psi |
| Tensile strength | ASTM D638 | 3,200 psi |
| Flexural strength | ASTM D790 | 4,100 psi |
| Concrete bond strength | ASTM D4541 | 400 psi substrate fails |
| Water absorption (2-hour Boil) | ASTM D570 | 0.05% |
| Surface resistivity (meets ANSI/ESD S20.20) | ASTM D257 | 1.0×10^6 to 1.0×10^9 ohms |
| Static decay | Mil-STD 3010, Method 4046 | 0.01 seconds |
| Static generation | ANSI/ESDSTM 97.2 | <25 V |
| With dissipative footwear | ANSI/ESDSTM 97.2 | 5 V |
| Slip resistance | ASTM F609 | 0.5 minimum |
| Coefficient of friction | ASTM D2047 | 0.5 |
| Indentation | Mil D3134 | 0.27 max |
| Impact resistance | Mil D3134 | Pass |
| Flame Spread/NFPA 101 | ASTM E84 | Class A |
| Hardness Shore D | ASTM D2240 | 74-80 |
| VOC | | 0% VOC |

Coverage:

- Minimum 2 coats at 160 ft²/gal each
- Thicker applications result in improved ESD readings
- Thoroughly mix Part A prior to adding Part B

Limitations:

- Colors do not match the E100 Series color chart due to the conductive additive that darkens the color.
- Recommended application temperatures are 68°F to 88°F / 20° C to 31° C, to ensure proper flow and leveling.
- Top coating with any other top coat or wax will render the static dissipative properties ineffective.
- **Product is not intended for munitions or explosive manufacturing and storage facilities.**

Available Packaging: 3 gal & 15 gal kits