

Durex® Dur-A-Static ESD 300 Conductive

High performance, Non-Yellowing, Abrasion Resistance, Conductive Polyurethane Top Coat for Dur-A-Static ESD Systems

Description	Durex® Dur-A-Static ESD 300 Conductive is a versatile, easy-to-use, thin-build, abrasion-resistant, durable, non-yellowing aliphatic urethane coating designed as the conductive top coat for Durex® Dur-A-Static electrostatic discharge (ESD) flooring systems. Durex® Dur-A-Static ESD 300 Conductive is designed for use as a durable, wear resistant topcoat in a static discharge system that provides electric conductive resistance to protect sensitive electronic equipment and machinery. The system performs to a range of 2.5×10^4 to 1.0×10^6 ohms. The system consists Priming/leveling layer which is then combined with conductive grounded copper wire, Durex® Dur-A-Static ESD 100 intermediate conductive coat and Durex® Dur-A-Static ESD 300 conductive.
Uses	Durex® Dur-A-Static ESD 300 conductive is the wear resistant conductive top coat for Durex® Dur-A-Static Durathane Conductive Electrostatic Discharge (ESD) flooring system to provide electrostatic control properties to concrete and other construction substrates. The system is recommended for floors in environments where static electricity and stray currents produced by friction could pose risks of explosions or interference with the working of precision electronic instruments.
Ideal For	<ul style="list-style-type: none"> • Data Processing Centers, Computer and IT related rooms and processing facilities • Dry powder filling and handling facilities • Solvent handling facilities • Flammable gas handling location • Aircraft & Aerospace facilities and hangars • Pharmaceutical plants • Hospitals and health care facilities / laboratories • Electronic based manufacturing facilities & production areas with electrically sensitive equipment • Computer, conductor & circuit board production areas • Explosion hazard facilities
Features	<ul style="list-style-type: none"> • Protects sensitive electronic parts from the effects of static charges • Prevents explosions due to sparks of accumulated static charges by effectively conducting it away. • Avoid errors in readings recorded by sensitive electronic instruments monitoring vital parameters. • Enables easy maintenance of clean room environment through its seamless, pore free smooth surface. • Improves the working environment by its pleasant aesthetics. • Conforms to ANSI S20.20, $< 3.5 \times 10^7$ ohms when tested in accordance with ANSI STM 97.1 • Available in conductive range (2.5×10^4 to 1.0×10^6) ohms per ANSI/ESD S7.1/ASTM F-150. • Low BVG Body Voltage Generation • Maintain electrical resistance throughout coating thickness

TECHNICAL DATA

PHYSICAL PROPERTIES	
Colour	Please see Durex® ESD Colour Selection Guide for available colour options.
Resin Type	Aliphatic polyurethane
Mix Ratio	Part A (Resin): Part B (Hardener) Factory controlled Unit.
Coverage	250 to 300 ft ² /gal @ 6-8mils DFT
Cure Time @ 23°C	To touch: 2 hours <i>Drying times will vary due to temperature and humidity</i> Recoat time: 8 – 24 hours Foot traffic: 24 hours Total cure: 5 days
Pot Life @ 23°C	30 minutes
Recommended Film Thickness	6-8 mils DFT

PERFORMANCE PROPERTIES	TEST METHOD	DUR-A-STATIC ESD300
Percent Solids	ASTM D7232-06	85%
V.O.C.	ASTM D3960	190 g/L
Specific Gravity (Mixed)	ASTM D333	1.01 ± 0.05 g/L
Viscosity (Brookfield, 23°C)	ASTM D2196	600 cps
Abrasion Resistance	ASTM 5178-91 CS-17 wheel	25 mg loss, 1000 g load, 1000 cycles
Tensile Strength	ASTM D638-86	2,700 psi
Elongation	ASTM D638-86	35%
Adhesion to Concrete	ASTM D4541	> 350 Psi Concrete fails
Shore D Hardness	ASTM D2240	95

Packaging	Durex® Dur-A-Static ESD 200 is packaged in 3.78 L (1 gal) and in 18.9 L (5 gal) kits. Durex® Dur-A-Static ESD 300 conductive is available in multiple standard colours. Custom colour matching can also be attained at an additional cost. Please refer to the <i>Durex® Colour Selection Guide</i> for all available colour options.
Storage Conditions	Store Durex® Dur-A-Static ESD 300 in a dry, vented, waterproof location, stacked off the ground, out of direct sunlight and other detrimental conditions. KEEP FROM FREEZING.
Surface Preparation	<p>Surfaces to be coated must be free of dirt, oils and any other contaminants that may prevent proper adhesion. Contact Durabond Technical Services for surface preparation methods for surfaces contaminated by oil or other material.</p> <p>Durex® Dur-A-Static ESD 300 conductive is to be applied over top of Durex® Dur-A-Static ESD 100, an Intermediate Conductive Coat that is vital to the Durex® Dur-A-Static ESD system. Durex® Dur-A-Static ESD 300 conductive must be applied over top of Durex® Dur-A-Static ESD 100 within 8-24 hours of application. Please contact your Durabond representative for further details. Durex® Dur-A-Static ESD 100 must be installed over top of an appropriate primer that has been electrically grounded with copper wire installed over top. Recommended primers are Durex® Epotel Multi-prime and Durex® Epotel GSC. Please contact Durabond for appropriate copper tape.</p> <p>Surfaces to be coated must be free of dirt, oils, and any other contaminants that may prevent proper adhesion. Contact Durabond Technical Services for surface preparation methods of surfaces contaminated by oil or other materials.</p>
Mixing Instructions	Mixing shall be carried out in a clean, rust-free container, and mixed by a power drill at 400-500 rpm maximum. See the respective product data sheets for specific mixing ratios and instructions.
Application	<p>Isolation Layer Primer: Refer to Durex® Dur-A-Static ESD system data sheet.</p> <p>Electrical Grounding: Refer to Durex® Dur-A-Static ESD system data sheet.</p> <p>Intermediate Conductive Coat Refer to Durex® Dur-A-Static ESD system data sheet.</p> <p>ESD Body Coat (Durex® Dur-A-Static 300 ESD Conductive): Apply Durex® Dur-A-Static ESD 300 conductive over cured Durex® Dur-A-Static ESD 100 within an 8-24-hour window after application. Substrate and ambient temperatures must be above 10 degrees C. For best results, apply by squeegee followed by back-rolling to achieve 6-8 mils DFS. The notched squeegee should be 450 to 600 mm (18 to 24 in) long with 1.6 -3.2 mm (1/16 to 1/8 in) notches at 6.4 mm (1/4 in) intervals. Recommended to apply material along perimeter edges with 75 mm (3 inch) - 100 mm (4 inch) with wide synthetic brush, followed by a lint-free 12 mm (1/2 inch) pile roller. Carefully organize the work with Avoid stop and start lines within any one section. Ensure that the final stroke of the roller is always in the same direction and with the same pressure applied to the roller. Maintain a wet edge to prevent overlap marks and gloss differences. Divide the floor into sections that can be applied and completed without interruption. When ending a section, tape it off to form a clean, straight edge for an adjacent section.</p>
Limitations	<p>Durex® Dur-A-Static ESD Flooring System shall not be installed under the following conditions:</p> <ul style="list-style-type: none"> • Concrete slabs with a moisture content greater than 4% by weight • High-compression (super-plasticized) concrete slabs • Application temperature is less than 3 degrees Celsius above dew point • On-grade slabs and split concrete slabs with existing membrane coating • Minimum ambient and substrate temperatures: Below 10 degrees Celsius
Clean-up	Wash tools and equipment immediately with mineral spirits. Wash all tools and equipment immediately with mineral Xylene or solvent-based cleaner. Allow any unused product to harden in container and discard according to local regulations.
Health and Safety	Use rubber gloves when handling the product. Avoid contact with eyes and prolonged contact with skin. Read published Safety Data Sheet prior to use and for additional information.
Warranty	Durabond warrants this product is free of manufacturing defects, and will replace at no charge, provided it has been applied within 12 months of purchase, it has been installed for uses suitable for this product and in accordance with the manufacturer's instructions.

DURabond

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Technical Services

Technical support is available upon request at info@durabond.com. For the latest version of this data sheet, please visit our website at www.durabond.com, call toll free at 1-877-DURABOND (387-2266) or speak with your Durabond Technical Coatings Ltd. sales representative.



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