

Monolithic Seamless Floor Coatings ESC Series: ESC-3000 / ESC-6000 / ESC-9000

PRODUCT DESCRIPTION

ESC Series ESD epoxy floor coating is a 100% solids epoxy designed to meet the static control requirements of a wide variety of industrial flooring needs. As a total system, including PRIME & SEAL PRIMER and PRIMER ESD-WB, ESC-3000 ESD epoxy provides 32 mils of protection. It is designed for protection of concrete in light to medium service areas, typically for foot traffic and rubber covered wheel traffic. While this product does have a two month shelf life, it will not compromise electrical performance, it may however, effect aesthetic properties.

ESC Series ESD epoxy floor coating is a two component formulation of epoxy resin and cycloaliphatic curative. Integrated conductive particles provide the required degree of static dissipation.

ESC Series ESD epoxy floor coating is perfect for electronic assembly areas, paint plants, paint spray areas, areas for automatic guided vehicles, computer control rooms, clean rooms and pyrotechnic processing and storage areas among many others.

FEATURES and BENEFITS

- ✓ Electrostatic Dissipative (ESD): For areas where electrostatic charge build-up hinders productivity. (1.0 x 10⁶ to 1.0 x 10⁹ @ 100V)
- ✓ Chemical Resistant: Offers splash and spill resistance to a variety of acids, alkalis, and solvents.
- ✓ Anti-Spark: Meets the needs for spark resistant floor topping.
- ✓ Durability: ESC Series ESD epoxy floor topping provides a wear surface for protection where conductive tile, conductive carpet or rubber mats just aren't enough.
- ✓ Maintenance: ESC Series ESD epoxy is nonporous. It is easily mopped clean or hosed.
- ✓ Monolithic: Its monolithic construction provides a wall-to-wall or joint-to-joint seamless floor.
- ✓ Extreme Toughness: Has exceptionally high resistance to impact. May be used in wet areas. Resists water erosion without moisture absorption.

PACKAGING and COVERAGE

Kit Size Coverage: 1 gallon = 100 sq. ft.

COLOR

Available in Navy Gray and Light Gray. Colors may vary slightly from colors shown on the standard color chart.

TOOLS REQUIRED

- ✓ Shot blaster, grinders
- ✓ Squeegee, paint rollers
- ✓ 3/8" electric drill, "Jiffler mixer"
- ✓ Duct tape, chalk line, painters tape
- ✓ Rags, xylene cleaning solvent
- ✓ Goggles, gloves, soap and water

CONCRETE PREPARATION

New Concrete

Laitance must be removed by muriatic acid etching or shotblasting. On concrete that has been cured with curing compounds or has a burned in finish, shotblasting or sandblasting is required.

Existing Concrete

Concrete must be sound and old coatings and toppings must be removed. Concrete must be free of previous coatings, oil, wax, paint and other contaminants. Water soluble contaminants can be hosed off with water. Water insoluble materials will require the use of a cleaner degreaser or some other method of removal.

Note: Concrete must be visibly dry before applying primers.

Proper application requires successive single coats of PRIME & SEAL PRIMER and PRIMER ESD-WB, which are spread over the prepared concrete surface with a rubber squeegee then rolled with a short nap roller. Refer to individual technical bulletins for Application and Mixing instructions. Rate of application will vary depending on the surface texture and porosity. Expected coverage rates will be:

PRIME & SEAL PRIMER 8 mils (wft) = 200 sf/gal

PRIMER ESD-WB 8 mils (wft) = 200 sf/gal

MIXING

Mix ESC Series ESD epoxy with a Birdcage or Jiffler mixing attachment and electric drill. Add the complete container

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of Part B to the shortfilled gallon of Part A. Mix for two minutes to ensure complete mixing.

APPLICATION OF ESC-3000

Application is accomplished using a rubber squeegee and a short nap roller, at a thickness of 16 mils (100 sf/gal).

CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up. Otherwise, stronger solvents such as methylene chloride will be necessary. Refer to Material Safety Data Sheets (MSDS) for clean up materials.

TESTING

After 24 hours, surface resistivity can be tested for confirmation with job specifications. Final readings should be taken after 5 days. Readings will vary until full cure is achieved.

SAFETY

ESC-3000 ESD contains amine curing agents. Avoid skin contact. In case of eye contact or ingestion, contact a physician immediately. In case of skin sensitivity to these materials, use protective clothing and gloves.

MATERIAL SAFETY DATA SHEET

Material Safety Data Sheets are available. It is strongly recommended that they be read by all persons handling ESC-3000 ESD.

QUESTIONS/ASSISTANCE

If there are any questions on the use of this product, please Julie Industries Customer Service at 978-988-8802, Monday through Friday, 8:30am - 5:00pm EST.

TECHNICAL SPECIFICATIONS

METHOD	RESULT	TEST
Bond Strength Elcometer pull	Exceeds tensile strength of concrete (Concrete fails first)	ASTM D-4541
Hardness, Shore D	70-75	ASTM D-2240
Compressive Strength	14,864 psi	ASTM D-696
Flexural Strength	248	ASTM D-790
Tensile Strength	1673 psi	ASTM D 638
ELECTRICAL PROPERTIES		
Surface Resistance @100V	1.0 x 10 ⁶ - 1.0 x 10 ⁹	ANSI/ESD 7.1
Body Voltage Decay 1000V ---> 50 Volts	< .4 seconds Hy-Test S/D Wolverine Footwear	Wearing ESD shoes
Body Voltage Generation AATCC 134-1979 (with ESD shoes)	< 25 volts	Modified
Shelf Life	2 months from date of manufacture	