PRODUCT DESCRIPTION
MaxStat EC and MaxStat ESD floor topping materials are 90 mil, self-leveling seamless floor toppings, designed to meet the electrically conductive, electrostatic dissipative and antistatic requirements of a wide variety of industrial flooring needs. As a total system, including Prime & Seal Primer and Primer EC/ESD, MaxStat EC/ESD gives 105 mils of protection.

MaxStat EC/ESD floor topping systems are two component formulations of epoxy resin polymer, and cycloaliphatic curative with conductive elements to provide the required degree of conductivity. An attractive, longlasting, and easily maintained floor is the result of thorough quality control of materials as well as proven formulations for specific needs.

MaxStat EC/ESD floor topping materials are ideally suited 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.

FEATURES and BENEFITS
✔ Electrically Conductive (EC): For areas requiring low resistance (25,000 ohms to 1 megohm @ 500 V based on NFPA 99 test method)
✔ Electrostatic Dissipative (ESD): For areas where electrostatic charge build-up hinders productivity. (1 megohm to 1,000 megohms @ 100 V based on ASTM F test method)
✔ Chemical Resistant: Offers resistance to a variety of acids, alkalis, and solvents.
✔ Anti-Spark: Meets the needs for spark resistant floor topping.
✔ Durability: MaxStat EC/ESD epoxy floor topping provides a wear surface for protection where conductive tile, conductive carpet or rubber mats just aren’t enough.
✔ Maintenance: MaxStat EC/ESD epoxy is nonporous and of extreme high density. It resists gritting and traffic soil, will not support bacterial growth, will not hold odors and is easily mopped clean. Will not dust.
✔ 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
MaxStat EC/ESD are available in only one kit size: 70 sf at 90 mils (3.93 gallons of liquid, plus fibers to be added on site)

COLOR
Twelve standard colors are available.

TOOLS REQUIRED
✔ Shot blaster, grinders.
✔ Screed rake, EC/ESD spike rollers.
✔ Squeegee, paint rollers.
✔ 3/8" electric drill, "Jiffy mixer*.
✔ Duct tape, chalk line, painters tape.
✔ EC/ESD mixer, vacuum cleaner.
✔ Rags, xylene cleaning solvent.
✔ Goggles, gloves, soap and water.

CONCRETE PREPARATION
Preparation of the existing concrete is the most important step in the installation of a MaxStat EC/ESD floor.

All grease, oil and other contamination must be removed. The surface of the concrete must be clean and rough to enable the epoxy based polymer to achieve maximum bond.

Mechanical methods, including shotblasting, and grinding are used to prepare the floor. Prior to the application of a MaxStat floor, concrete should be at least 28 days old and have 200 psi tensile strength. When required, shorter concrete cure times are sometimes possible.

Contact StaticWorx Technical Service for assistance.

Curing compounds should be limited to those types which can be removed by mechanical preparation of the surface.

Existing control and expansion joints are carefully analyzed in order to provide the maximum monolithic seamless floor.

All edges are taped with a double layer of duct tape or 1/8” foam tape. Every attempt should be made to terminate the floor at walls and doors to eliminate gradation problems at any edge.

When MaxStat EC/ESD must be terminated in an open area, bevel the edge after cure to eliminate a rough edge.
PRIMERS
Successive single coats of Prime & Seal Primer and Primer EC/ESD are applied to the prepared concrete surface with a steel or rubber squeegee then rolled with a short nap roller.
Rate of application will vary depending on the surface roughness and porosity. Expected coverage rates will be:

Prime & Seal Primer  150-200 sf/gal
Primer EC/ESD       200 sf/gal

The primers should be allowed to “set” prior to the placement of MaxStat EC/ESD floor topping. This is an important step in order to insure a safe, pinhole free base for the MaxStat EC/ESD floor. Primer setting time will vary with ambient temperature. At 75°F, primer set time will be approximately 5 to 6 hours per coat.

MIXING
Note: Before starting, ensure that the material, concrete surface, and the ambient air MUST be a minimum of 70°F; maximum of 90°F.

Mixing of MaxStat EC/ESD must be done with a ECSL M-60 mixer. After pre-mixing the Part A for 30 seconds to assure color consistency, pour Part B into the mixer. Make sure to pour Part B while the ECSL mixer is running and mix for 2 minutes. Then add one container of fibers to the center of the vortex and mix for one additional minute. (Excessive mixing will induce air bubbles, therefore DO NOT OVERMIX).

APPLICATION
Immediately pour the mixture on the floor. Use a squeegee to spread the material, assuring proper coverage (70 sf kit at 90 mils). Then use an EC/ESD spike roller to ensure release of any entrapped air and align fibers. The direction, speed and frequency of rolling is extremely critical to the floor’s final electrical properties; be sure to comply with the detailed rolling procedures in the Application Instructions bulletin.
Place 3M #3050 male grounding connectors in the material at predetermined locations at the rate of one per 1,000 square feet. After the floor has cured, 3M #3040 ground leads are connected at these points.

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 cure, approximately 24 hours, surface resistivity should be tested for conformance with job specifications. (Refer to the MaxStat Specification Guide.) Final readings should be taken after 5 days.

SAFETY
MaxStat EC/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 MaxStat EC/ESD.

QUESTIONS/ASSISTANCE
If there are any questions on the use of this product, please StaticWorx Customer Service at 617-923-2000, Monday through Friday, 8:30am - 5:00pm EST.
**Monolithic Seamless Floor Coatings**

**MaxStat EC/ESD**

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**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>METHOD</th>
<th>RESULT</th>
<th>TEST</th>
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<tbody>
<tr>
<td>Compressive Strength</td>
<td>10,700 psi</td>
<td>ASTM C 579</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>3,600 psi</td>
<td>ASTM C 580</td>
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<tr>
<td>Tensile Strength</td>
<td>2,500 psi</td>
<td>ASTM C 307</td>
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<tr>
<td>Bond Strength to Concrete</td>
<td>Exceeds tensile strength of concrete</td>
<td>ASTM D 4541</td>
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<tr>
<td>(Concrete fails first)</td>
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<td>Taber Abrasion</td>
<td>Loss/1000 Cycles = 69 mg</td>
<td>ASTM D 406</td>
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<tr>
<td>Linear Coefficient of Thermal Expansion</td>
<td>2.5 x 10^-5 in/in/°F</td>
<td>ASTM C 531</td>
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<td>Impact Resistance</td>
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<td>Mil-D-3134J</td>
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<td>Coefficient of Friction</td>
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<td>Hardness, Shore D</td>
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<td>ASTM D 2240</td>
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**ELECTRICAL PROPERTIES**

- **Surface Resistance**
  - (EC) 25,000 ohms - 1 megohm @ 500 volts
  - NFPA 99 Test Method
  - (ESD) 1-1,000 megohms @ 100 volts
  - ASTM F 150