

# DEX-O-TEX<sup>®</sup>

## System Description Sheet

# Electro-Flor HS-SD

## ESD (Electro-Static Discharge) High Solids Flooring System

### 1. PRODUCT DESCRIPTION

#### A. COMPOSITION

Electro-Flor HS SD is a fluid applied, monolithic, high solids epoxy flooring, which is electrically active within resistance range requirements for a “static dissipative” flooring system.

Typical thickness of Electro-Flor HS SD is 37 mils (0.939mm) to 50 mils (1.27mm), depending on substrate conditions. If the substrate is rough and uneven, a Dex-O-Tex troweled or self-leveling undercoat should be applied prior to the Electro-Flor HS SD system. It is available in a standard range of industrial colors.

Electro-Flor HS SD is designed to provide static-control properties, which prevent electro-static damage to electronic products and equipment. It is important that the user’s static-control requirements be clearly specified so as to insure proper static-dissipative levels. The resistance range for static dissipative flooring is one million (1E<sup>6</sup>) to one billion (1E<sup>9</sup>) ohms, as tested in accordance with ESD Association Standard 7.1.

Workers interacting with the floor and must be connected to it by the use of conductive footwear, straps or conductive wheels. This is usually a requirement for all conductive and static dissipating flooring systems.

Electro-Flor HS SD is designed to be applied over concrete surfaces. For other surfaces contact Crossfield Products Corp.

Concrete substrates with a high level of moisture can negatively effect the conductivity of conductive and static dissipating flooring systems.

#### B. TYPICAL USES

As “electro-static discharge” protective flooring for clean rooms, electronics manufacturing and assembly or any ESD sensitive environment.

#### C. ADVANTAGES AND LIMITATIONS

##### ADVANTAGES:

1. Protective ESD flooring system.
2. Sanitary
3. Excellent abrasion resistance.
4. Chemical Resistant
5. Monolithic, seamless.
6. More durable than tile or sheet goods when exposed to forklift traffic.
7. Installed only by Professional Factory Trained Dex-O-Tex Contractors.

##### LIMITATIONS:

1. If sub-surface cracks move due to continued thermal flexing or mechanical loads or building settlement, Dex-O-Tex Electro-Flor may reflect those cracks to some degree.
2. A waterproofing and crack isolation membrane can be installed prior to system application.
3. Moisture vapor emission rates (MVER) in excess of 3 lbs/1000 sq/ft/per 24 hr period per ASTM F1869, or an rh in excess of 78% per ASTM F2170 may result in delamination, discoloration or improper curing without proper treatment

prior to installation of the flooring system. Consult with Crossfield Products Corp. for specific recommendations.

### 2. TYPICAL PHYSICAL PROPERTIES at 75°F (24°C)

- A. **Electrical Transmission Properties** ..... 1E6-1E9 ohms  
Point-to-Point and Point to Ground resistance per ESD 7.1.  
Static Dissipative (SD)
- B. **Impact Resistance** ASTM D2794.....Passes  
Direct/Reverse 160/160 in-lbs.
- C. **Flexibility** ASTM D522, 1/8-inch mandrel.....Passes
- D. **Adhesion** ASTM D3359..... 5B
- E. **Abrasion Resistance** ASTM D4060  
CS-17 wheels, 1 kg, 1000 cycles .....116 mg
- F. **Microbial Resistant** ASTM G21 ..... Passes Rating 1
- G. **Chemical Resistance** (See Chemical Resistance Chart)

### 3. OVERVIEW OF INSTALLATION STEPS

- A. **Preparation:** Prepare surfaces by careful and thorough removal of laitance, grease, bond inhibiting concrete curing sealers and other foreign matter.

#### Static Dissipative Application

- A. Apply VaporControl Primer 200 or 1P as required
- B. Apply Electro-Flor HS Topcoat.

### 4. PRODUCT AVAILABILITY

Crossfield Products Corp. maintains offices and/or factories at all addresses listed below. Factory Trained Contractors are established in all major trading areas in the United States, Canada and various European, Latin American and Far East nations.

### 5. SKID RESISTANCE and CLEANABILITY

In general, the more aggressive the finished surface the greater the coefficient of friction and corresponding skid resistance, the more difficult to clean. The smoother the finished texture the easier the surface is to clean, but there is a loss of skid resistant properties.

### 6. CLEANING

Cleaning and disinfecting compounds and cleaning techniques can affect the color, gloss, texture and performance of the system. As a precautionary step, Crossfield recommends that the end-user test their cleaning and disinfecting compounds on a sample or on a small, out of the way finished area, utilizing the intended cleaning technique prior to cleaning the entire surface area. If no deleterious effects are observed, the procedure can be continued. If the cleaning and disinfecting compounds or cleaning techniques damage the system, modification of the cleaning material or techniques will be required. Contact your Representative for additional information.

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### 7. SPECIFICATION ASSISTANCE

Consult Crossfield Products Corp. for specification assistance, detailing, etc. This consultation is highly recommended prior to specification.

### 8. CHEMICAL RESISTANCE

See Crossfield Products Corp.'s Chemical Resistance Guidelines for chemical resistance of a product or system, as well as the types of test performed:

- ASTM C868 Standard Test Method for Chemical Resistance of Protective Lining.
- ASTM C267 Standard Test Method for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing and Polymer Concretes.
- ASTM D1308 Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
- Crossfield Products Corp. Proprietary Testing.

Note: Chemical resistance is a functional test, usually limited to changes in weight or thickness measured in loss or gain and does not evaluate subject aesthetic issues. To determine aesthetic issues, Crossfield recommends testing the products or system in accordance with intended end use.

### 9. TESTING

The technical data contained herein is the result of tests made in Crossfield's laboratories or in independent laboratories using small scale equipment, following generally accepted trade practices. Although this information is believed to be true and accurate, the use of different equipment for testing under dissimilar conditions or the testing of samples produced under dissimilar conditions may develop substantially different results.

### LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICE ARE MET.

Crossfield Products Corp. warrants to the purchaser of its products that such products are free from manufacturing defect. Crossfield does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield's obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product's shelf life, by the original purchaser and which Crossfield examination shall disclose to Crossfield's satisfaction to be thus defective.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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