

## SYSTEM DATA SHEET

# Sikafloor® ESD CR E

CHEMICAL RESISTANT NOVOLAC HIGH BUILD ELECTROSTATIC CONTROL EPOXY  
COATING ENGINEERED WITH SIKAFLOOR® - 270 ESD AT 26- 33 MILS (0.6 - 0.8 MM)

### PRODUCT DESCRIPTION

Sikafloor® ESD CR E is chemical resistant Novolac high build electrostatic control epoxy coating, designed to impart electrostatic control properties to a variety of substrates in conjunction with ESD footwear, including existing non-conductive substrates. The system provides very low body voltage values when used with the appropriate compliant footwear. Maintains electrical conductivity throughout the entire thickness of the system. Sikafloor® ESD CR E typically installed at 26 - 33 mils (0.6 - 0.8 mm).

### USES

Sikafloor® ESD CR E may only be used by experienced professionals.

Sikafloor® ESD CR E can be used in environments where the damaging effects of electrostatic discharge (ESD) cannot be tolerated and the enhanced corrosion resistance properties of a novolac epoxy resin system are desired. Industries currently using these coatings are:

- Electronics Manufacturing
- Data Processing Facilities
- Military/Aerospace
- Printing Plants
- Photographic/Graphic
- Hazardous Industries (Dust or explosion hazards)
- Pharmaceutical/Clean Rooms

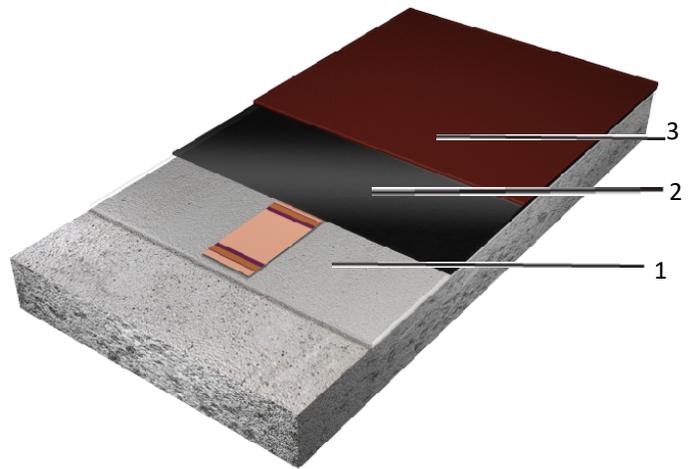
### CHARACTERISTICS / ADVANTAGES

- Conforms to ANSI S20.20-2014 when tested in accordance with ANSI STM 97.1
- Conductive range ( $2.5 \times 10^4$  to  $1.0 \times 10^6$  ohms) per ANSI/ESD S7.1/ASTM F-150
- Body voltage generation under 30V with ESD compliant footwear.
- Consistent resistance measurements are observed when testing in accordance with standard methods.
- Maintains electrical conductivity throughout the entire thickness of the system.
- Does not depend on relative humidity for conductive properties.
- Tough, smooth, non-porous surface is easy to clean and maintain.
- Good abrasion resistance.

# SYSTEM INFORMATION

System Structure

Sikafloor® ESD CR E~ 26- 33 mils (0.6 - 0.8 mm)



Description	Products	Thickness mils/inch
1. Primer	Sikafloor®-161	8 - 10
2. Conductive Primer	Sikafloor®-222 W	4 - 6
3. Top Coats	Sikafloor®-270 ESD	16 - 20
<b>Options</b>		
Primers	Sikafloor®-1620	8 - 10
	Sikafloor®-165 FS	8 - 10

<b>Color</b>	Available in broad range of standard and custom colors. Please refer to Sikafloor ESD Color Guide and Contact Customer Service for custom colors availability.
<b>Nominal thickness</b>	26- 33 mils (0.6 - 0.8 mm)
<b>Minimum thickness</b>	26 mils (0.6 mm)
<b>Volatile organic compound (VOC) content</b>	Please refer to the individual Product Data Sheets

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	84	ASTM D2240 at 73°F (23°C) and 50% R.H
<b>Abrasion Resistance</b>	CS-17/1000 cycles/1000g 113 mg loss	ASTM D4060 at 73°F (23°C) and 50% R.H
<b>Compressive Strength</b>	11,458 Psi (79 MPa)	ASTM C695 at 73°F (23°C) and 50% R.H
<b>Flexural Strength</b>	10,587 Psi (73 MPa)	ASTM D790 at 73°F (23°C) and 50% R.H
<b>Tensile Strength</b>	6,193 Psi (42.7 Mpa)	ASTM C638 at 73°F (23°C) and 50% R.H
<b>Elongation at Break</b>	2.3 %	ASTM D638 at 73°F (23°C) and 50% R.H
<b>Indentation</b>	52%	MIL-PRF-24613 at 73°F (23°C) and 50% R.H
<b>Chemical Resistance</b>	Please consult Sikafloor Technical Services.	

## APPLICATION INFORMATION

<b>Coverage</b>	<b>Description</b>	<b>Products</b>	<b>Approximates Sq.Ft./kit</b>
	1. Primer	Sikafloor®-161	900@8mils
	2. Conductive Primer	Sikafloor®-222 W	560@4mils
	3. Top Coats	Sikafloor®-270 ESD	450@16 mils
	<b>Options</b>		
	Primers	Sikafloor®-1620	900@8mils
		Sikafloor®-165 FS	1,000@8mils
<b>Ambient Air Temperature</b>	Minimum/Maximum 50/85 °F (10/30 °C)		
<b>Substrate Temperature</b>	Minimum/Maximum 50/85 °F (10/30 °C)		

## PRODUCT INFORMATION

<b>Packaging</b>	Please refer to the individual Product Data Sheets
<b>Shelf Life</b>	Please refer to the individual Product Data Sheets
<b>Storage Conditions</b>	Please refer to the individual Product Data Sheets

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## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## LIMITATIONS

Please refer to the individual Product Data Sheets

## ENVIRONMENTAL, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets before using any products. For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## SUBSTRATE PREPARATION

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, form oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit a good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI - CSP 3-6. The compressive strength of the concrete substrate should be at least 3,625 psi (25 MPa) at 28 days and a minimum of 218 psi (1.5 MPa) in tension at the time of application.

Repairs to cementitious substrates, filling of blowholes, leveling of irregularities, etc. should be carried out using an appropriate Sika profiling mortar. Contact Sika Technical Service for a recommendation.

### Primer

Priming for concrete substrate is required. Prime with either Sikafloor-160, Sikafloor-161, Sikafloor-1620 or Sikafloor-165 FS. Allow the primer to cure (varies with temperature and humidity) until tack free before applying subsequent coats.

Ensure that the primer is pore-free, pinhole-free and provides uniform and complete coverage over the entire substrate. Please refer to the most current and respective Product Data Sheet for further information.

## MIXING

Please refer to the individual Product Data Sheets

## APPLICATION

Please refer to the individual Product Data Sheets

## OTHER RESTRICTIONS

See Legal Disclaimer.

## LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

### Sika Corporation

201 Polito Avenue  
Lyndhurst, NJ 07071  
Phone: +1-800-933-7452  
Fax: +1-201-933-6225  
[usa.sika.com](http://usa.sika.com)

### Sika Mexicana S.A. de C.V.

Carretera Libre Celaya Km. 8.5  
Fracc. Industrial Balvanera  
Corregidora, Queretaro  
C.P. 76920  
Phone: 52 442 2385800  
Fax: 52 442 2250537



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