



CROSSFIELD PRODUCTS CORP.

# TECHNICAL DATA

## CPC Cross-Stat™ ESD Conductive Floor Coating System

### PRODUCT DESCRIPTION

CPC Cross-Stat™ ESD CONDUCTIVE EPOXY SYSTEM floor coating is designed to impart effective reduction of static charges on personnel with compliant rated footwear.

CPC Cross-Stat ESD CONDUCTIVE EPOXY SYSTEM will provide a smooth, wear-resistant, and light reflective surface for electrostatic sensitive work areas.

CPC Cross-Stat ESD CONDUCTIVE EPOXY SYSTEM is easily cleanable and requires no follow-on static control treatments to remain effective for the service life of the floor.

CPC Cross-Stat ESD CONDUCTIVE EPOXY SYSTEM provides a flooring surface that conforms to ANSI S20.20 - 21 and other applicable standards when measured in accordance with ASTM ESD STM S7.1, with a surface and ground resistance of to  $>2.5 \times 10^4$  to  $<1.0 \times 10^6$  ohms. The system meets various industry and government standards for conductive range static control flooring surfaces.

### PRODUCT FEATURES

- Conforms to ANSI S20.20-21
- Meets Requirements for NFPA 77, ASTM F-150
- Efficient Control of Static Electricity
- Very Low Odor During Application
- High Gloss Finish
- Good Resistance to Common Chemicals<sup>1</sup>
- Stain Resistant
- Anti-Microbial Additive Available

### WHERE TO USE

- Electronics Manufacturing
- Flammable Liquids, Powders, Gasses Storage & Handling
- Munitions, explosives, propellants
- Critical Medical Environments
- Clean Rooms
- Data Centers,
- Network Operation Centers
- Anywhere Electrostatic Protection is Required

<sup>1</sup> Refer to CPC Chemical Resistance Chart

### PHYSICAL PROPERTIES

VOC	<5 g/l
Taber Abrasion ASTM D 4060 CS17 wheel/1,000 cycles/1000 g	60 mg
Impact Resistance ASTM D2794	Passes
Hardness, ASTM D2244 Shore D	90
Adhesion to Concrete ASTM D4541	>350 psi Concrete Fails

### PACKAGING

#### CPC ESD Conductive Primer (Single Component)

A Component 1 Gallon

#### CPC ESD EPOXY 3.75 Gal Kit Premeasured

#### Mix whole units only

A Component - 5038-2GPA 2 Gallons

B Component - 5038-IGCB 1.0 Gallon

C Component - 5038-C 10 Lb.

### CONCRETE MOISTURE

CPC ESD CONDUCTIVE EPOXY SYSTEM is recommended to be applied over primer base coat. Do not apply direct to concrete. Test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply CPC MVP Moisture Vapor Primer as the base coat. Refer to the CPC technical data sheet for complete surface preparation and application data.

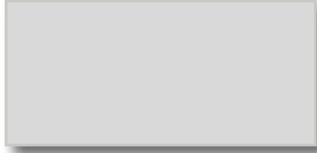
Alternately, test for excessive concrete moisture in accordance with ASTM F2659. Moisture content of concrete substrate must be  $\leq 4\%$  by mass as measured with a Tramex® CME/CMExpert type concrete moisture meter on prepared surface. Stand-alone applications are achieved by applying CPC MVP Moisture Vapor Primer as the base coat.

Calcium chloride testing is not recommended for qualitative testing of the substrate.

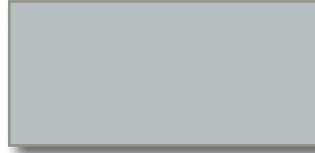


## AVAILABLE COLORS

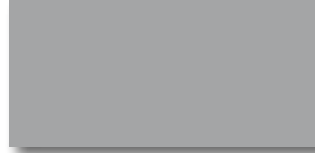
Printed colors are a close approximation of the actual product color. Actual color may vary due to printing, lighting, surface texture, or method of applications. Obtain a sample coupon from CPC for actual color. Custom colors available on request.



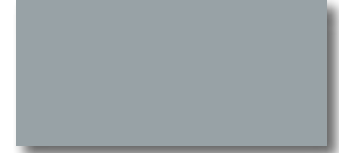
Light Gray



Silver Gray



Electric Gray



Charcoal Gray

## APPLICATION GUIDELINES

ESDCOATING SYSTEM	Installation Method	Product and Mix Ratio	Coverage Rate Approx
Step 1	Surface Profile minimum CSP-3 (See: Preparation)		
Step 2	CPC MVP Moisture Vapor Primer (as applicable due to substrate moisture)		
	Squeegee/Back roll @ 16 mils MVP >85% (ASTM F2170) or >4% (ASTM F2659) See <i>Concrete Moisture</i> in CPC MVP Technical Data.	CPC MVP Ratio 2A : 1B Recoat within 8 - 24 hours Use full units only, do not split.	100 sq. ft. per gallon
Step 3	Apply CPC Conductive Primer		
	Roller apply at 4 mils WFT	Single Component, use as is, do not thin	400 sq. ft. gallon
Cure Time	4 - 6 hours @ 70°F (20°C)		
Step 4	CPC ESD Top Coat		
	Squeegee/Back roll @ 12 - 16 mils	Mix full factory packaged units only	375 - 500 sq. ft. per mixed full unit

## SURFACE PREPARATION

Stand-alone applications are achieved by applying CPC MVP Moisture Vapor Primer as the base coat. Refer to the CPC technical data sheet for complete surface preparation and application data.

Existing, well-adhered, compatible coatings may be prepared by sanding or grinding to produce a uniformly open, gloss-free surface. Ensure the complete removal of any residual oil, grease, wax or other foreign substance. Solvent wipe if necessary. Thoroughly vacuum prepared surface to remove all dust just prior to application. Protect prepared surface against contamination prior to application of product.

Application of the CPC Cross-Stat ESD CONDUCTIVE EPOXY SYSTEM over existing conductive or static dissipative resinous flooring installations should have an isolation layer of CPC Epoxy applied to ensure electrical characteristics.

## MIXING

Mix full factory packaged kits only. Do not break down units, electrical properties will be compromised.

Premix each component thoroughly before use. Ensure that conductive element and pigment is completely dispersed in the A component. Scrape sides and bottom thoroughly to ensure complete consolidation. Add full container of B component and pour into A component under slow agitation. Mix with low-speed drill and mixing attachment for a full three minutes.

Add C component under agitation and incorporate full, mix for an additional two minutes.

Immediately place material onto floor surface. Do not allow material to rest, settlement will occur.



## APPLICATION

Application of **CPC Conductive Primer** is necessary to achieve conductive resistance range on ESD topcoat. After pre-mixing the single component, apply the conductive primer at 400 sq. ft./gallon. Apply with paint tray and 1/4-inch nap roller. Do not allow to accumulate in pockets or depressions, product may skin over and cause blisters in final coat.

Apply **CPC Cross-Stat ESD Conductive** finish coat after conductive primer is fully dried. Spread mixed material on the floor in a ribbon. Distribute with a non-marking rubber squeegee. Either a flat blade or notched to appropriate size notches for desired wet film thickness.

Back roll with a quality, non-shedding, solvent-resistant core roller cover with a 1/4- or 3/8-inch nap. The use of 9-inch rollers for smaller areas and 18-inch rollers for larger open areas is recommended to reduce roller lines and marks. Replace roller covers frequently for best results.

Finish all rolling within the open time of the product. Avoid reworking areas that have been finished.

Finish roll in one direction, across the entire area, to reduce final roller lines.

## GROUNDING

Positive grounding of the **CPC CD ESD CONDUCTIVE EPOXY** Flooring System should be positively connected to the building electrical or structural ground. This may be achieved by several methods.

Copper tape may be used under the application of **CPC Conductive Primer**.

Positive grounding may be achieved where a robust connection point is desired or where there is no convenient grounding point to the building structure or electrical ground. This may be achieved by inserting metallic anchors into the concrete substrate.

For hazardous environments, one grounding point per 1,000 sq. feet is recommended. Individual applications may differ. Consult CPC for grounding details.

## CLEANING & MAINTENANCE

CPC ESD floor systems may be cleaned with normal cleaning products provided they do not leave any residue that may interfere with flooring/footwear contact. Do not treat CPC ESD system surfaces coating with wax, acrylic floor finish, or any other film-forming product; conductive properties may be destroyed or critically reduced. Refer to CPC Cleaning & Maintenance Guide for complete information.

## STORAGE & SHELF LIFE

Six [6] months from date of manufacture, in original, unopened, factory containers. Store between 50°F - 85°F (10°C - 30°C). Protect from direct sunlight, extreme heat or cold, excessive moisture, and fire hazards.

## LIMITATIONS

- Temperature range for application; ambient, material, & substrate limitation: 65°F to 85°F (18.5°C - 30°C)
- Relative Humidity range: 20 - 85%
- Do not exceed recommended application thickness, electrical properties may be adversely affected
- Do not apply ESD topcoat in multiple applications, electrical properties may be adversely affected. Apply in one [1] coat only.
- CPC ESD Coating may not be used for cove base applications.
- New poured concrete containing polymer reinforcing fibers may adversely affect the electrical performance of the product. Consult CPC for more information.
- Box same lot numbers for best color uniformity, use CPC factory supplied pigments only for compatibility. Use of non-CPC pigments will result in unsatisfactory results and will void warranty.
- Avoid air movement across surface of wet material during application, blisters may occur
- Protect from moisture and condensation for 24 hours after application, staining, hazing may occur
- Do not apply to substrates exhibiting or tested positive for alkali silica reaction (ASR) or near surface alkali reaction (NSAR)
- For professional use by experienced applicators only



## DISCLAIMER

Results may vary based depending upon mixing methods and equipment, surface texture, concrete substrate, ambient temperature and humidity conditions, application methods & tools. CPC Crossfield Products Corp. assumes no responsibility or liability for any errors or omissions in the content of this document. The information contained is subject to change without notice.

## WARRANTY STATEMENT

All sales are subject to the Crossfield Terms and Conditions effective on the date the purchase order is received. The Terms and Conditions are incorporated herein in full by this reference. The Terms and Conditions are set forth at [www.crossfieldproducts.com](http://www.crossfieldproducts.com) and will also be sent by mail or fax to the purchaser upon request. By placing an order, the Buyer acknowledges that it has read and agrees to the provisions of the Terms and Conditions. Crossfield Products Corp. assumes no responsibility or liability for any errors or omissions in the content of this document. The information contained is subject to change without notice.



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