



Product Technical Data Sheet

MIRACOTE® CR TOPCOAT Chemical Resistant, Slip-Retardant Coating

1. PRODUCT DESCRIPTION

A. COMPOSITION

Miracote CR Topcoat is a highly chemical resistant, slip-retardant coating for application over concrete or else as the finish coating for Miracote CQ Clear Epoxy.

Formulated using the most advanced Novolac-epoxy chemistry, Miracote CR Topcoat produces a tighter “cross-linking” than conventional epoxies. As a result, the material resists physical attack from the spillage of a very wide range of acids, alkalis and solvents. It also resists staining from the spillage of many chemicals, which would discolor ordinary epoxies.

Due to its specialized chemistry, Miracote CR Topcoat is premium priced compared to conventional epoxy floor coatings and should be used only where its superior properties are required.

Miracote CR Topcoat is a three component material consisting of Novolac epoxy resin, catalyst and special metallic, oxide, slip-retardant aggregates. The three components are mixed together immediately prior to application and the material is then troweled into place. The final coating is applied by roller.

Miracote CR Topcoat is available in five different slip-retardant “profiles” ranging from very coarse to very fine. Selection of profiles to be used depends upon the degree of slip-retardance required, the cleaning characteristics desired and the area of use.

The material is available in a wide range of colors as well as a non-pigmented, clear type.

Formulated with environmental requirements in mind, CR Topcoat contains no hydrocarbon solvents and thus meets all state and local volatile organic substance regulations. CR Topcoat has no significant odor during installation.

B. TYPICAL USES

Slip retardant surface coating for use in manufacturing, storage, laboratories and containment areas subject to damaging chemical spillage.

C. ADVANTAGES AND LIMITATIONS

ADVANTAGES:

1. Resists wider range of chemical spillage’s than conventional epoxies.
2. Heat resistant.
3. No significant odor during installation.
4. Wide range of color and profile selections.

LIMITATIONS:

1. Temperature during application must be 60°F (18°C) or greater.
2. Requires functioning vapor barrier beneath on-ground concrete floor to prevent upwards water vapor transmission which may result in loosening of epoxy materials.
3. If sub-surface cracks, material may reflect cracks to some degree

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

A. Surface Hardness – ASTM D2240 (Durometer)

Scale “D” - 80

B. Flexibility - ASTM D1737 Passes 180° Bend,

3/8” Mandrel

C. Adhesion - ASTM D3359 (Cross-Hatch) No loosening

D. Thermal Shock Resistance - ASTM D1211 (30 mins.

Boiling water / No failure at 50 cycles 30 mins. Ice water)

E. Temperature Resistance - No measurable softening, deflection or integrity loss upon 8 hours immersion in boiling water (212°F) and boiling cooking oil (>300°F)

F. Water Absorption - MIL-D-3134 Nil (7 day immersion)

G. Chemical Resistance - (See separate chemical resistance tables for additional chemical testing) Resist 90 day immersion without damage or deterioration in: Concentrated Hydrochloric Acid 50%, Phosphoric Acid, Acetone, Concentrated Ammonium Hydroxide, 50% (concentrated) Sulfuric Acid, 25% Acetic Acid, 1,1,1 Trichloroethane Methanol (Methyl Alcohol), 50% Sodium Hydroxide.

H. Overall Thickness (Dry Film) to top Slip-Resistant Aggregate

Fine Profile	12 mils
Medium Profile	23 mils
Coarse Profile	50 mils
Very Coarse	65 mils

I. Coefficient of Static Friction Rubber Shoe Surface

	Salt Water Solution	Dry Surface
	<u>On Surface</u>	<u>Surface</u>
Fine Profile	.61	.68
Medium Profile	.63	.65
Coarse Profile	.78	.89
Very Coarse	.84	1.14

J. Fire Retardance

ASTM E648, FTMS 372, NFPA 253, NBSIR 75-950
Critical Radiant Heat Flux > 1.07 Watts/cm²

3. INSTALLATION

- A. Prepare surfaces other than Miracote materials by shot blasting, power scarification, etc. to remove laitance, grease, curing agents, etc.
- B. Apply primer (other than Miracote surfaces)
- C. Trowel apply grout/filler coat.
- D. Apply final coat incorporating slip-retardant aggregate. Stipple with roller.

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. SLIP RESISTANCE and CLEANABILITY

In general, the more aggressive the finished surface the greater the coefficient of friction and corresponding slip 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.

7. MAINTENANCE

For maximum sheen and cleanability, floor should be routinely treated with conventional maintenance finish followed by ordinary buffing.

8. SPECIFICATION ASSISTANCE

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

9. 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.

10. 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

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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