



MiraFlor CR

Product Technical Data Sheet

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

Formulated using the most advanced normal-epoxy chemistry; Miracote MiraFlor CR 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.

Miracote MiraFlor CR is a three component material consisting of normal 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 MiraFlor CR 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-retardant 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, Miracote MiraFlor CR contains no hydrocarbon solvents and thus meets all state and local volatile organic substance regulations. It has no significant odor during installation.

ADVANTAGES

- Meets or exceeds USDA inspection requirements.
- Resists wider range of chemical spillage's than conventional epoxies.
- Heat resistance.
- No significant odor during installation.
- Wide range of color and profile selections.
- Available through Miracote distributors.

COVERAGE RATES

160 sq. ft. @ WFT 10 mils per gallon.

PACKAGING

Kit Sizes: 1.5 gal, 3 gal and 15 gal

MIX RATIO

Two parts by Volume Comp. A to one part by volume Comp. B.

SHELF LIFE AND STORAGE

Shelf life will be one year from the date of manufacture as long as containers remain unopened and when material is store in a protected environment that is free from moisture, excessive heat and freezing temperatures, and direct sunlight.

WHERE TO USE

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

TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

Surface Hardness ASTM D2240 (Durometer)

Scale “D” 80

Flexibility ASTM D1737.....Passes 180° Bend, 3/8” Mandrel

Adhesion ASTM D3359 (Cross-Hatch) No loosening

Thermal Shock Resistance ASTM D1211

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

Temperature Resistance

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

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

Chemical Resistance See separate chemical resistance tables for additional chemical testing) Resist 90 day immersion with-out 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.

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

Coefficient of Static Friction Rubber Shoe Surface

Surface	Salt Water On Surface	Dry
Fine Profile.....	.61.....	.68
Medium Profile.....	.63.....	.65
Coarse Profile.....	.78.....	.89
Very Coarse.....	.84.....	1.14

Fire Retardance

ASTM E648, FTMS 372, NFPA 253, NBSIR 75-950

Critical Radiant heat Flux>1.07 Watts/cm²

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FOR BEST RESULTS

Install a minimum 4' by 4' test area site mock up for approval of acceptable color, texture, finish, adhesion, and any other critical requirement acceptable to the owner prior to proceeding with the installation.

Verify current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guides (IG) at www.miracote.com.

Protect materials from excessive heat and cold and regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application thicknesses and rate are obtained.

OVERVIEW OF INSTALLATION

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

LIMITATIONS

- Temperature during application must be 60°F (180°C) or greater.
- Requires functioning vapor barrier beneath on-ground concrete floor to prevent upwards water vapor transmission, which may result in loosening of epoxy materials.
- If sub-surface cracks, material may reflect cracks to some degree.

Moisture vapor transmission (MVE) in excess of 3.0 lbs./1000 sq ft per 24 hr. period per ASTM F1869, may result in delamination, discoloration or improper curing. Use Miracote MiraPrime MVERS vapor control membrane over substrates, which have MVE emissions that exceed these limits. Consult with Crossfield prior to using MiraPrime MVERS if moisture vapor transmission exceeds 15 lbs/1000 sq/ft/per 24 hr period per ASTM F1869.

PRODUCT AVAILABILITY

Crossfield Products Corp. Miracote maintains offices and factories at addresses listed below. Miracote products are available for purchase through reputable distribution in the building trades.

MAINTENANCE

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

SPECIFICATION ASSISTANCE

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

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.

CHEMICAL RESISTANCE

See Crossfield Products Corp. 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.

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.

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. INVOICES ARE MET.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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