



Product Technical Data Sheet

CQ CLEAR EPOXY TROWELED FLOOR 3/16" to 1/4" Decorative Colored Quartz Floor with Integral Covebase

1. PRODUCT DESCRIPTION

A. COMPOSITION

CQ Clear Epoxy Troweled Flooring System is a decorative trowel applied flooring system designed to produce a seamless floor with integral covered base. The completed floor has a nominal thickness of 3/16" (4.75 mm) to 1/4" (6.35mm). The colored quartz granules are in a clear epoxy mortar binder, that is groutcoat and topcoated. The system is resistant to a wide range of chemicals (see Chemical Resistance Chart).

CQ Clear Epoxy Troweled Flooring System can be applied over concrete, metal or wood substrates (Consult Crossfield for a detailed specification for placement on metal or wood substrates).

It can be finished with optional topcoats of clear (gloss) or matte finish, Mirathane APU 100 (Aliphatic Polyester Urethane), which are chemical, abrasion and UV stable or Glazetop a highly chemical and abrasion resistant polyurea topcoat.

Colored quartz aggregate granules are available in standard color blends. See Crossfield's Colored Quartz Trowelable Epoxy Flooring System Color Card for standard patterns or an infinite number of custom patterns can be blended.

Miracote CQ Clear Epoxy Troweled is available with an EPA Listed Antimicrobial Biocide, which protects against growth of algae, bacteria, fungi, mold, mildew, yeast, etc.

B. TYPICAL USES

Miracote CQ is designed to be used in facilities where aesthetics and functionality are both required, such as, pharmaceutical plants, research and development, bio-tech, clean rooms, medical facilities, laboratories, commercial kitchens, food processing, institutional facilities, food and beverage processing, wine and spirits and other facilities requiring an aesthetic functional floor.

C. ADVANTAGES AND LIMITATIONS

ADVANTAGES:

1. Monolithic, including integral covered base can possess the same appearance or it can be color contrasted.
2. Resistant to many chemicals (See Chemical Resistance Chart).
3. Rapidly installed decorative seamless floor at moderate cost.
4. Aesthetically pleasing with high physical and mechanical properties.

LIMITATIONS:

1. If dynamic cracks in the substrate move the flooring system may reflect the cracks. To minimize the potential of reflecting cracks telegraphing from the substrate, use

MC-5 Membrane or another Miracote crack isolation systems.

2. A waterproofing and crack isolation membrane can be installed prior to system application.
3. Moisture vapor transmission (MVE) in excess of 3.0 lbs./1000 sq/ft/per 24 hr. period per ASTM F1869-04, may result in delamination, discoloration or improper curing. Use Miracote MVERS II vapor control membrane over substrates, which have MVE emissions that exceed these limits. Consult with Crossfield prior to using MVERS II if moisture vapor transmission exceeds 15 lbs/1000 sq/ft/per 24 hr period per ASTM F1869-04.

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

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| A. Compressive Strength ASTM C579
(Resin, Hardener & Aggregate) | 10,500 psi
(738 kg/cm ²) |
| B. Compressive Strength ASTM D695
(Resin & Hardener) | 12,900 psi
(907 kg/cm ²) |
| C. Tensile Strength ASTM C307
(Resin, Hardener & Aggregate) | 1,800 psi
(127 kg/cm ²) |
| D. Tensile Strength ASTM D638
(Resin & Hardener) | 5,000 psi
(352 kg/cm ²) |
| E. Flexural Strength ASTM C580 | 4,000 psi
(281 kg/cm ²) |
| F. Surface Hardness ASTM D2240 Shore D | 80-85 |
| G. Indentation Characteristics
(Steadily Applied Load) MIL-PRF-3134,
Para. 4.7.4.2.1, 2000 lbs on
1" steel ram imposed for 30 minutes over
a concrete substrate, indented | 0.005"
(0.127 mm) |
| H. Indentation Characteristics MIL-PRF-3134, Para. 4.7.3
(Impact Load) | 0.011"
(0.28 mm) |
| (2 lb. .908 kg.) Indent from steel ball
dropped twice from 8 ft. height | |
| I. Adhesion ASTM D4541
(100% failure in concrete) | > 400 psi
(28.1 kg/cm ²) |
| J. Water Absorption MIL-PRF-3134 | < 1.0% |
| K. Abrasion Resistance ASTM D4060
(CS17, 1000gr load, 1000 cycles) | 0.04 gr |
| L. Flammability ASTM D635 | Self-Extinguishing
Bonded to Concrete |
| M. Skid Resistance | Varies depending upon surface texture selected.
(See Crossfield Skid Resistance Characteristic) |
| N. Microbial Resistant ASTM G21 | Passes |
| O. Chemical Resistance (See Chemical Resistance Chart) | |

3. OVERVIEW OF INSTALLATION STEPS

- A. Prepare surface by careful and thorough removal of all laitance, grease, concrete curing agents and foreign matter.

- B. Apply Bondcoat Primer by squeegee, roller or brush.
- C. Trowel apply CQ Clear Epoxy and colored quartz aggregate to a thickness of 3/16" (4.75mm) to 1/4" (6.35mm).
- D. Groutcoat with CQ Clear Epoxy by squeegee or trowel, and by backrolling. Apply second groutcoat if required.
- E. Optional finishcoat, with matte finish or optional high performance clear sealer.

4. PRODUCT AVAILABILITY

Miracote Products/Systems are available from Authorized Miracote Distributors or from Crossfield Products Corp.

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 Crossfield for additional information.

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.

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CAUTION: ALWAYS KEEP MIRASTAIN I OUT OF THE REACH OF CHILDREN.



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