



MiraFlor CQ Broadcast System

System Technical Data Sheet

MiraFlor CQ Broadcast System is a decorative color quartz broadcast flooring system designed to produce a seamless and attractive floor with integral cove base offering excellent durability and chemical resistance. Easy to install and maintain, MiraFlor CQ Broadcast System consists of color quartz granules embedded in MiraFlor CQ Clear Epoxy, a 100% solids epoxy resin by either single broadcast or double broadcast methods.

MiraFlor CQ Broadcast System is typically applied directly to mechanically prepared concrete substrates from 1/16" (1.6mm) for a single broadcast floor to 1/8" (3.2mm) for a double broadcast floor. In addition to concrete, it can be applied over metal, wood and other substrates. Consult Crossfield Products Corp. for technical assistance when installing over substrates other than concrete.

Depending on specific service and exposure conditions, other MiraFlor resinous clear topcoats are available to enhance chemical resistance, abrasion resistance or anti-microbial protection when demanded. Contact a local Miracote representative for the most appropriate MiraFlor coating among which includes novolac epoxy, polyurethane, polyaspartic or polyurea technologies.

WHERE TO USE

- Pharmaceutical plants and warehouses
- Hospitals and healthcare facilities
- Laboratories
- Prisons and correctional institutions
- Stadiums and arena's
- Shower and locker rooms
- Cafeteria's and food service facilities

ADVANTAGES

- Rapidly installed decorative seamless floor at moderate cost.
- Only one epoxy resin required through entire system.
- Wide array of skid resistant textures and colors.
- Lower maintenance and life cycle costs vs. other flooring types.
- LEED-compliant, low odor and fast cure time.
- Meets USDA, FDA, OSHA standards.
- Superior epoxy resin clarity.

SYSTEM COMPONENTS

MiraFlor CQ Clear Epoxy – Primer Coat
MiraFlor CQ Clear Epoxy – Broadcast Coat & Lock/Seal Coat
MiraFlor CQ (Color Quartz) Aggregate – Broadcast Medium

THEORETICAL COVERAGE RATES

Single Broadcast System:

Primer Coat.....200-250 sq. ft. per gal
Broadcast Coat.....160 sq. ft. per gal
Broadcast Aggregate...1 lb. per sq. ft. to excess*
Lock/Seal Coat.....65-125 sq. ft. per gal

Double Broadcast System: Use single broadcast rates plus

Dbl. Broadcast Coat....65 sq. ft. per gal
Broadcast Aggregate...1 lb. per sq. ft. to excess*

*(Recovery of excess aggregate will typically range from 60-70%)

PACKAGING and COLORS

Kit Sizes: 1.5 gallon, 3 gallon, 15 gallon, 150 gallon
Component A: 1-gal, 2-gal, 5-gal, 50-gal units
Component B: .5-gal, 1-gal, 5-gal, 50-gal units
Color Quartz Aggregate: 50-pound bags
Solid: Gray, Blue, White, Black, Brown, Buff, Tan, Green, Red
Blends: Eighteen standard blends. Custom blends available.

MIX RATIO

Component 'A' : Component 'B' = 2 : 1 by volume.
CQ Aggregate: Approximately 40 lbs. per 100 sq. ft.*
*(Factored recovery rate of 60%)

SHELF LIFE AND STORAGE

One year from the date of manufacture as long as containers remain unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

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

Viscosity (mixed)	750 cps
Solids	
Content	100%
Pot Life (1 gallon mass)	Approximately 30 minutes
Tack-Free Time:	
50°F(10°C): 10-12 hrs.....	75°F(24°C): 4-6 hrs. ...90°F(32°C): 2-4 hrs.
Compressive Strength ASTM C579.....	10,000 psi
(Resin, Hardener & Aggregate).....	738 kg/cm ²
Tensile Strength ASTM C307.....	1,800 psi
(Resin, Hardener & Aggregate).....	127 kg/cm ²
Flexural Strength ASTM C580.....	4,000 psi
(Resin, Hardener & Aggregate).....	281 kg/cm ²
Surface Hardness ASTM D2240 Shore D.....	80-85
Pencil Hardness	3H
Indentation Characteristics	0.005"
(Steadily Applied Load) MIL-D-3134.....	0.127mm
2000 lbs. on 1" steel ram imposed	
for 30 minutes over concrete substrate, indented	
Indentation Characteristics	0.011"
(Impact Load) MIL-D-3134,.....	0.28 mm
(2 lb. 908 kg) Indent from steel ball	
Dropped twice from 8 ft height	
Adhesion ASTM D4541.....	>400 psi
(100% failure in concrete).....	28.1 kg/cm ²
Water Absorption MIL-D-3134.....	<1.0%
Abrasion Resistance ASTM D4060.....	0.09 gr
(CS17, 1000gr load, 1000 cycles)	
Flammability ASTM D635.....	Self-Extinguishing
	Bonded to Concrete
VOC	3 g/L
Skid Resistance	
Varies depending upon surface texture selected	
(See Crossfield Skid Resistance Characteristic)	
Microbial Resistant ASTM G21.....	Passes Rating 1
Chemical Resistance	(see Chemical Resistance Chart)

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FOR BEST RESULTS

- Always 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 and download current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guides (IG) at www.miracote.com.
 - Protect materials at all times from excessive heat and cold, and pre-condition to room temperature as necessary.
 - Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by Miracote representatives are only for the purpose of making recommendations, and do not assume any liability for supervision or quality control.
- Measure surface and ambient temperatures to ensure the material is only applied when temperatures are 50°F (10°C), and rising during placement and cure time.

OVERVIEW OF INSTALLATION STEPS

- **Surface Preparation** – All surfaces must be clean, sound, dry and free from any bond inhibiting substances including, but not limited to, grease, oil and any other contaminants or loosely adhered materials. For concrete substrates, a minimum surface profile of a CSP-3 or higher is required depending on overall substrate conditions and coating requirements.
- **Mixing** – MiraFlor CQ Broadcast System clear epoxy resin components must be mixed mechanically using a low-speed drill (300-450 rpm) until blended with a “Jiffy-type” or similar Miracote-approved mixing paddle. Empty entire contents of component A and component B into a clean mixing vessel. Mix for approximately 3 minutes keeping the mixing head fully immersed at all times. At least once when mixing, stop to scrape down the sides and bottom of the pail to ensure thorough blending of both components. If not mixing full units, each component must be pre-mixed individually ensuring uniformity prior to use. Once completely mixed and in observance of pot life, dispense material immediately from the pail to the substrate.

- **Application** –

Primer: When mixed pour out MiraFlor CQ or other suitable primer in a ribbon across the concrete surface to receive broadcast. Using a flat squeegee, spread the material evenly left to right, and back-roll using only a 3/16” or 1/4” maximum nap roller. Allow the primer to dry until it is completely tack free.

Broadcast Coat: Pour out mixed epoxy broadcast coat in a large ribbon across the primed concrete surface as soon as it becomes tack free. Spread evenly with a notched squeegee, and back-roll epoxy with a high quality 1/4” nap roller to achieve millage consistency of the wet film. Repeat in the same manner when installing a double broadcast system.

OVERVIEW OF INSTALLATION STEPS (Continued)

Broadcast Aggregate: Immediately broadcast quartz aggregate in a rainfall pattern over the epoxy base coat to ensure a smooth and even quartz surface. Continue to broadcast color quartz to excess until there are no visible areas of glistening resin. Allow broadcasted epoxy base coat to cure then sweep and vacuum excess quartz aggregate. Repeat in the same manner when installing a double broadcast system.

Lock/Seal Coat: When mixed pour out epoxy or other resinous lock/seal coat of choice in a ribbon across the broadcast quartz surface, and spread the material evenly with a flat squeegee to ensure consistent millage uniformity. Finish with a back-roll using a 1/4” maximum nap roller.

LIMITATIONS

- Installed product forms a vapor barrier after cure.
- Not intended for use on exterior concrete slabs-on-grade.
- Minimum ambient/substrate temperature of 40F (4C).
- Concrete must be minimum age of 21-28 days, depending on curing and drying conditions.
- Maximum allowable moisture vapor transmission (MVT) of 3.0 lbs./1000 sf./per 24 hr. period per ASTM F1869 (CaCl Testing).
- Maximum allowable moisture vapor transmission (MVT) of 75% RH as per ASTM F2170 (RH-Relative Humidity Testing).
- Use MiraPrime MVERS epoxy moisture mitigation primer over concrete substrates that have MVT emissions that exceed these limits.

LIMITED WARRANTY

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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