



MiraFlex BRF

System Technical Data Sheet

MiraFlex BRF is a medium duty, multi-layered, fluid-applied waterproof flooring system designed for use in mechanical equipment rooms on grade or above occupied spaces. The system is comprised of individually applied, layered components each performing distinct functions including an elastomeric waterproofing membrane reinforced with poly fabric mesh, a polymer-modified cementitious protective wear course, and an acrylic pigmented top coat for optimal care and daily maintenance requirements.

Depending on service and exposure conditions, as required, several other Miracote protective coating technologies are available for enhanced chemical and abrasion resistance or anti-microbial protection. Environmentally safe and non-flammable, MiraFlex BRF system components are entirely water-based product technologies and contain no hydrocarbon solvents. The approximate thickness of the installed system will range between 3/32" (2.38 mm) and 1/8" (3.17 mm). In addition to concrete, MiraFlex BRF can be applied over metal, wood and other substrates. Contact a local Miracote representative for technical assistance when installing over substrates other than concrete or for alternative protective topcoat product technologies.

WHERE TO USE

- Mechanical equipment rooms
- Boiler and furnace rooms
- Air conditioning and handling rooms
- Laundry and utility rooms
- Engine and electrical areas
- Pump rooms
- Raised access flooring
- Plenums and similar areas subject to water spillage

ADVANTAGES

- Monolithic, seamless waterproofing with integral cove base.
- Environmentally safe and non-flammable during installation.
- Wide array of skid resistant textures and colors.
- Anti-fracture and crack resistant.
- Lower maintenance and life cycle costs vs. other flooring types.
- LEED-compliant, low odor and fast cure time.

SYSTEM COMPONENTS

Membrane Option 1: MiraFlex Membrane A (requires primer)
Membrane Option 2: MiraFlex Membrane C (no primer required)
Reinforcement Mesh: Miracote Poly Fabric
Wear Course Option 1: MiraPatch RM 3
Wear Course Option 2: Miracote MPC
Pigmented Topcoat: MiraGard Colorbond XL

THEORETICAL COVERAGE RATES*

MiraFlex Membrane A: (Membrane Layer Option 1)
Primer Coat (50% dilution).....400 sq. ft. per gal
1st Membrane Coat.....64 sq. ft. per gal
2nd Membrane Coat (over poly fabric).....50 sq. ft. per gal

MiraFlex Membrane C: (Membrane Layer Option 2)
1st Membrane Coat.....160 sq. ft. per unit
2nd Membrane Coat (over poly fabric).....112 sq. ft. per unit

MiraPatch RM 3: (Protective Wear Course Option 1)
Troweled layer @ 3/32".....50.4 sq. ft. per unit
Troweled layer @ 1/8".....33.6 sq. ft. per unit

Miracote MPC: (Protective Wear Course Option 2)
1st Coat.....500 sq. ft. per unit
2nd Coat.....500 sq. ft. per unit

MiraGard Colorbond XL: (Pigmented Acrylic Topcoat)
1st Topcoat.....250-300 sq. ft. per gal
2nd Topcoat.....250-300 sq. ft. per gal

*(Refer to individual PTDS and System Installation Guidelines)

PACKAGING, COLORS AND MIX RATIO

Refer to individual PTDS for each system component.

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)

Waterproofness

Smith-Emery Laboratories Test procedure (Sample 18" diam. Subjected to 50 lbs. per inch water pressure for 60 mins. Test for amount of water forced through in grams).....None

Tensile Strength & Elongation ASTM D1117

Elongation Dry..... 29.0%
Break load Dry..... 79 lbs. per inch
Elongation Wet..... 31.0%
Break load Wet..... 67 lbs. per inch

Strip Adhesion

Strip adhesion measured in per linear inch force required to pull up membrane. 19.2 tbs. per inch

Indentation Characteristics MIL-D-3134, Para. 4.7.4.2.1

(Steadily Applied Load)..... Less than 5%
(2000 lbs. on 1" steel ram imposed for 30 mins)

Indentation Characteristics MIL-D-3134, Para 4.7.4

(Impacted Load)..... No cracking or Loosening
(2 Steel ball dropped from 8 ft height)

Resistance to Elevated Temperatures

MIL-D-3134, Para. 4.7.5.1.....No flow or slip

Slip-Resistance (Coefficient of Friction)

Varies depending upon surface texture selected

OVERVIEW OF INSTALLATION STEPS

• **Surface Preparation** – All surfaces to receive MiraFlex BRF must be clean, sound, dry and free from any bond inhibiting substances including, but not limited to, dirt, grease, oil, and any contaminants or loosely adhered materials. For concrete substrates, a minimum surface profile of CSP-3 or higher is required depending on overall substrate conditions and coating requirements. For other substrate types, consult with a Miracote representative or Crossfield Products Corp. Technical Service Department.

MiraFlex BRF

System Technical Data Sheet

OVERVIEW OF INSTALLATION STEPS (continued)

- **Mixing** – Prior to use, all fluid components must be pre-mixed mechanically using a low-speed drill (300-450 rpm) with a “Jiffy-type” or similar Miracote-approved mixing paddle until thoroughly blended. Refer to Installation Guidelines for each Miracote product component in the MiraFlex BRF system.
- **Application** –
Priming & Elastomeric Membrane Layer: Refer to product technical data sheet and installation guideline for MiraFlex Membrane A (Option 1), or MiraFlex Membrane C (Option 2).
Cementitious Protective Wear Course: Refer to product technical data sheet and installation guideline for MiraPatch RM 3 (Option 1), or Miracote MPC (Option 2).
Pigmented Acrylic Topcoat: Refer to product technical data sheet and installation guideline for MiraGard Colobond XL.

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.

LIMITATIONS

- MiraFlex BRF is not a decorative or aesthetic flooring system.
- Minimum ambient/substrate temperature of 50°F (10°C) and rising is required at the time of application.
- When using MiraFlex Membrane A for the waterproofing layer, the maximum allowable moisture vapor transmission (MVT) is 3.0 lbs./1000 sf./per 24 hr. period when tested in accordance with ASTM F1869 (CaCl Testing) or 78% 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 prior to the application of MiraFlex Membrane A.

LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICES ARE MET.

Crossfield Products Corp. warrants to the purchaser of its products that such products are free from manufacturing defect. Crossfield does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield’s obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product’s shelf life, by the original purchaser and which Crossfield’s examination shall disclose to Crossfield’s satisfaction to be thus defective.

IN NO EVENT SHALL CROSSFIELD PRODUCTS CORP. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND ALL OTHER OBLIGATIONS OR LIABILITIES ON CROSSFIELD’S PART, AND WE NEITHER ASSUME NOR AUTHORIZE ANY PERSON OR PERSONS TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH SALE OF A CROSSFIELD PRODUCT. THIS WARRANTY SHALL NOT APPLY TO ANY OF CROSSFIELD’S PRODUCTS, WHICH HAVE BEEN SUBJECT TO ADULTERATION, ALTERATION ABUSE OR MISUSE. CROSSFIELD PRODUCTS CORP. MAKES NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES, PARTS OR MATERIAL NOT SUPPLIED BY CROSSFIELD PRODUCTS CORP., WHICH ARE USED IN CONNECTION WITH ITS PRODUCTS. THE TERM “ORIGINAL PURCHASER” IN THIS WARRANTY MEANS THAT PERSON, CORPORATION OR ENTITY TO WHOM CROSSFIELD PRODUCTS CORP. SOLD ITS PRODUCTS. ANY ACTION TO ENFORCE ANY WARRANTY OR FOR BREACH OF CONTRACT OR ARISING OUT OF ANY CLAIM AGAINST CROSSFIELD PRODUCTS CORP. SHALL BE COMMENCED AND MAINTAINED ONLY IN A COURT OF COMPETENT JURISDICTION IN THE CONTINENTAL UNITED STATES OF AMERICA. THE PURCHASER ACCEPTS THESE TERMS AND CONDITIONS, AND HEREBY EXPRESSLY WAIVES ANY CLAIM TO ADDITIONAL DAMAGES.

CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



**Miracote Product Line
Crossfield Products Corp**

www.miracote.com

East Coast Office
140 Valley Road
Roselle Park, CA 07204
P: (908) 245-2808
F: (908) 245-0659

West Coast Office
3000 E. Harcourt Street
Rancho Dominguez, CA 90221
P: (310) 631-6594
F: (310) 886-9119



**MIR.230
RAFLEX BRF
10-27-2014**