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: MiraFlex 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 lbs. 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)

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

Miracote Product Line
Crossfield Products Corp
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