

Product Description Sheet

Heavy Duty, Dual Membrane Waterproof System for Tile, Stone or Pavers

1. PRODUCTION DESCRIPTION

A. COMPOSITION

Dex-O-Tex Dual-Flex is a multi-layer, elastomeric waterproof system for uses under tile, brick, stone or pavers that incorporates two separate layers of waterproof protection. The system is engineered to provide maximum waterproofing protection over occupied space. Dual-Flex is composed of a high strength polyurethane waterproof membrane basecoat; a high-strength, flexible trowel grade, polymer reinforced, cementitious underlayment; a secondary multi-layer, fabric reinforced, polymer modified elastomeric membrane; and a cementitious co-polymer protection coat. Dual-Flex incorporates an integral flashing for drains, vertical surfaces and threshold.

The Dual-Flex system is designed to minimize reflective cracking from the substrate and create a seamless, waterproofing membrane barrier for maximum positive-side waterproofing protection. Designed for uses over plywood or concrete, this waterproofing system offers superior durability, weatherability and ultimate waterproof protection.

Dual-Flex is installed at a minimum 1/2" to 3/4" (12.7mm to 19.0mm) finished thickness and is designed for use over properly prepared plywood or concrete substrates (metal lath reinforcement is incorporated in the underlayment over plywood applications). It may also be installed over sound and secure existing surfaces like quarry tile, flagstone, etc. with proper preparation (consult CPC). The mortar bed underlayment can be sloped to provide positive drainage and prevent water pooling or to correct elevation problems at doorways, landings, steps, etc. Cold climate applications require additional technical considerations. Consult Crossfield Products Corp. for specific requirements.

B. USES / APPLICATIONS

- Over Occupied Spaces
- Condominiums & Apartment Communities
- High Rise Buildings
- Multi-Level / Multi-Use Facilities
- Walking Roof Decks
- Observation Decks
- Promenade Decks & Balconies
- Plazas, Walkways & Breezeways
- Commercial & Residential Pedestrian Traffic Areas

C. ADVANTAGES AND LIMITATIONS

ADVANTAGES

1. Provides positive waterproofing with premium dual waterproofing protection.
2. Crack isolation. Reduces reflective racking from the substrate to the final finish due to minor cracking in the substrate.
3. Forms a monolithic tightly adhering molded membrane across floors and up bases, curbs etc.
4. Maintains elastomeric properties at low temperatures.
5. Installed by Factory Trained Dex-O-Tex Applicators.
6. Can be applied over new or existing surfaces.
7. Environmentally safe. Contains virtually no organic solvents, and is VOC compliant.

LIMITATIONS

1. Requires sound and properly prepared substrate. All loose or unsound substrate materials must be removed and repaired with a Dex-O-Tex underlayment prior to the application of the Dual-Flex system.
2. Waterproofing must terminate at seismic or expansion joints.
3. Temperature must be between 45°F (10°C) and 110°F (43°C) during installation.
4. Concrete substrate must be sound and durable and free of large "working" cracks to prevent reflection through finish.
5. Not designed for vehicular or heavy steel wheeled traffic.
6. Substrate must be dry before and during application.
7. Not for use over OSB board.
8. Moisture vapor emission rates (MVER) in excess of 3 lbs/1000 sq/ft/per 24 hr period per ASTM F1869, or an rh in excess of 78% per ASTM F2170 may result in delamination, discoloration or improper curing without proper treatment prior to installation of the flooring system. Consult with Crossfield Products Corp. for specific recommendations.
9. Vapor control primers, sloping, smoothing or leveling compounds, crack repair or isolation, waterproof membranes or other supplementary items may be required for proper installation at an additional cost. Consult with Crossfield Products Corp. for specific recommendations.

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

PRIMARY MEMBRANE

A. Bond Strength

ASTM C482 (modified) Dry 77 psi
Wet..... 62 psi

B. Tensile Strength

Ceramic Tile Inst. SE S763 Dry..... 46 psi
Wet..... 50 psi

C. Breaking Strength ASTM D751 265 psi

D. Elongation Fabric Reinforced

ASTM D751 50.5%

E. Hydrostatic Pressure Resistance ASTM D751

Method A, Procedure 1 240 psi

F. Ozone Resistance ASTM D1149

(72 hrs @ 100 ppm No cracking, 90°F plus Hydrostatic crazing or waterFHA 4900.1) penetration

G. Dimensional Stability .ASTM D1204 <0.5%

H. Indentation Resistance FMA 4900.1, Sect. 615-5

No water (shower pans) penetration

I. Puncture Resistance FMA 4900.1, Sect. 615-5

No water (shower pans) penetration

J. System Performance ASTM C627 (Modified to Comply with Ceramic Tile Institute moderate

Commercial) No water penetration

K. Microbial Resistant ASTM G21 Passes Rating 1

MORTAR BED UNDERLAYMENT

A. Compressive Strength ASTM C109..... 4,140 psi

B. Tensile Strength ASTM C307 800 psi

C. Flexural Strength ASTM C580..... 1,200 psi

D. Hardness ASTM D2240, Shore D..... 70-75

E. Adhesion ASTM D4541 >400 psi (100% failure in concrete)

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- F. **Indention** MIL-D-3134, Para 4.7.4.2.12.26%
(Steadily applied Load, 2,000 lbs. On 1” steel ram
imposed for 30 min.)
- G. **Adhesion** MIL-D-3134, Para. 4.7.1.4.....305 psi
(Shear from Steel Plate after 96 hours)
- H. **Water Absorption** MIL-D-3134 3.14%
- I. **Impact Resistance** (Gardner Impact Test)
..... No chipping, cracking, or delamination
and not more than 0.014”

SECONDARY WATERPROOF MEMBRANE

- A. **Thickness (typical)**..... 1/16” (1.58 mm)
- B. **Adhesion** ASTM D4541> 400 psi
(100% failure in concrete)..... (28.1 kg/cm)
- C. **Tensile Elongation** ASTM D412..... 500%
- D. **Tensile Strength** ASTM D412..... 1,050 psi
- E. **Waterproofness** (sample exposed to 50 psi water
pressure for one hour).....No water transmission
- F. **Water Resistance** MIL-D-3134..... 16 mg
- G. **Hardness** ASTM 2240, Shore A 60-70
- H. **Crack Bridging and Low Temperature Flexibility**
ASTM C836.....Complies
- I. **Microbial Resistance** ASTM G21.....Passes Rating 2

3. INSTALLATION

- A. Prepare surfaces by removal of laitance, grease, foreign matter, etc. Repair damaged concrete or provide sloping using Dex-O-Tex underlayment.
- B. Apply intrgral Flashings, Crack treatment and detail coats.
- C. Apply Polyurethane rubber membrane.
- D. Install mortar bed underlayment with slope for drainage as required.
- E. Metal lath reinforcement required for application over plywood.
- F. Appy intrgral flashing, and detail applications.
- G. Apply synthethic resin waterproof membrane.
- H. Apply cementitious protection coat and embed reinforcing fabric while still wet.

4. PRODUCT AVAILABILITY

Crossfield Products Corp. maintains offices and factories at all addresses listed below. Factory Trained Dex-O-Tex Contractors are established in all major trading areas in the United States, Canada and various European and Far Eastern nations.

5. MAINTENANCE

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

6. SPECIFICATION ASSISTANCE

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

7. TESTING

The technical data contained herein is the result of test made in CPC or independent laboratories using small scale equipment following accepted trade practices. This information is believed to be factual and accurate. However, the uses of different equipment and testing under different

conditions, or testing of samples produced under different protocol may produce different results.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



DEX-O-TEX PRODUCT LINE Crossfield Products Corp.

3000 E. Harcourt Street	140 Valley Road
Rancho Dominguez, CA	Roselle Park, NJ
90221	07204
310-886-9100	908-245-2800
310-886-9119 fax	908-245-0659 fax



www.dexotex.com