

MCI®-2241/MCI®-2242 Watertight Coat

DESCRIPTION

MCI® -2241/2242 are flexible and breathable waterproofing membranes based on a unique combination of acrylic emulsion, Portland cement and fine fibers. Use them to waterproof all types of above- or below-grade concrete and masonry including foundations, block walls, balconies, parapets, planter boxes, water tanks, and fountains. MCI®-2241 is a gray color, MCI®-2242 is white.

MCI®-2241/2242 Watertight Coat were designed for water-proofing above- and below-grade concrete and masonry. Their precise blend of acrylic emulsion, Portland cement and fine fibers makes them ideal for waterproofing a wide range of vertical or horizontal surfaces. This unique combination of ingredients creates a breathable waterproofing membrane that is both flexible and abrasion-resistant. Watertight coat can be used in combination with a variety of pedestrian or light traffic durable coatings offered by Cortec Corporation to achieve a highly durable, aesthetically pleasing waterproof horizontal finish system for concrete and masonry substrates.

PACKAGING & STORAGE

MCI® -2241/2242 Component A is available in 2.3 gallons (8.9L) packaged in 5 gallon (19 L) pail. Component B is available in 25 lb (11 kg) bags. Each kit yields 4 gallons (15 L).

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 1 year



SURFACE PREPARATION

Remove loose or damaged material by sand-blasting or high-pressure (>3000 psi (20.7 MPa)) water-blasting. Make sure surfaces are sound, clean and free of all bond-inhibiting materials, including oil, dust, dirt, laitance and standing water.

TYPICAL APPLICATIONS AND FEATURES

Features	Benefits
Acrylic-emulsion-based	Ensures bond to substrate; repels water; provides flexibility
Flexible	Bridges static hairline cracks
Breathable	Allows substrate to breathe naturally; can be used on grade
Fiber-reinforced	Provides improved tensile strength
Solvent-free	VOC compliant; environmentally friendly; tools clean up with water
Pre-measured packaging	Provides improved job-site quality control; adds convenience and efficiency to mixing

COVERAGE

Each kit covers 88-100 ft² when applied at 1/16 in thickness (8 m² per 15.2 L at 1.6 mm thickness)

MIXING

Use both components at a preconditioned temperature of 70 +/- 5°F (21 +/- 3°C). Use one 2.3 gal pail (8.9 L) of Component A per one 25 lb. bag (11 kg) of Component B. Alternatively, batch mix in 1/2 units.

Mixing must be achieved mechanically using a slow-speed drill and a mixing paddle. Mix thoroughly for at least 3 minutes to a uniform, lump-free consistency. Once mixed, the working time is approximately 30-90 minutes, depending upon material, ambient and surface conditions.

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APPLICATION

Apply only to sound and clean, dry, properly prepared, frost-free surfaces.

Apply in one 1/16 inch (1.6 mm) thick coat with a stainless-steel trowel. Alternately, apply to a 1/16 inch (1.6 mm) total thickness using a spray device. Immediately trowel the product level.

Use Repair Mesh to reinforce areas such as: static hairline cracks, transitions between materials (i.e., concrete floor to CMU wall or EIFS trim to stucco wall) and changes in plane (tops of knee walls and parapets). Immediately embed Repair Mesh into the material. Using a stainless-steel trowel, smooth out any wrinkles in the mesh forcing it down before covering it with MCI®-2241/2242.

Curing/Drying

Allow a minimum drying time of 24 hours before overcoating. Protect from rain, freezing, and continuous high humidity until completely dry.

Clean Up

Clean tools and equipment with water immediately after use. Cured material can only be removed mechanically.

LIMITATIONS

Apply only when surface and ambient temperature are 45-50°F (7-10°C) and rising or 85°F (29°C) and falling.

Mix Component A and Component B only in the specified ratios. Never add water to the mixture.

Cold or damp conditions retard drying and require additional time before overcoating or opening to traffic.

Not recommended for bridging joints or dynamic cracks in concrete or masonry.

Not recommended for roofing applications or as a primary waterproofing over occupied space.

Not recommended for use on wood decks or wood balconies.º

PHYSICAL PROPERTIES

Report	Test Method	Test Criteria	Results	Metric Equivalent
Adhesion to Concrete	ASTM D-4541	7 days 28 days	150 psi 177 psi	103 Mpa 1.22 Mpa
Tensile Strength	ASTM D-412	w/o mesh w/mesh	0.470 psi 3800 psi	3.24 Mpa 26.2 Mpa
Elongation	ASTM D-412	w/o mesh w/mesh	11.0% 9.0%	
Flexibility Mandrel Bend	ASTM D-522	28 days	passes 1/8" @ 77°F	passes 3mm at 25°C
Abrasion Resistance	ASTM D-4060 Taber CS-10 wheel	3000 cycles 6000 cycles		weight loss 0.20 g 0.34g
Water Absorption	ASTM D-570	24 hour immersion	4.5%	
Waterproofing (hydrostatic pressure)		Untreated CMU Water tight Coat	1.45 psi >101.5 psi	0.01 MPa 0.70 MPa
Vapor Permeability	ASM E-96 Procedure B (wet) Procedure A (dry)		3.9 U.S. perms 0.6 U.S. perms	220 ng/Pa*m*s 33.1 ng/Pa*m*s
Chloride Ion Penetration	Modified NCHRP Report 244		89.9% reduction	
Rapid Chloride Permeability	ASTM C 1202	Watertight Coat	550 Coulombs	

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