

## PREMIUM Polymer-Modified Portland Cement Mortar — EGP

### PRODUCT DESCRIPTION

MULTICURE® 905 is a powdered latex enhanced dry-set mortar composed of Portland cement, sand and special polymer additives. MULTICURE 905 is used as a bond coat for setting all types of ceramic tile over a variety of substrates including exterior grade plywood (EGP). MULTICURE 905 offers the economy and ease of application of dry-set mortars while significantly improving bond strengths, freeze-thaw stability, flexural strength and other qualities formerly available only through the use of liquid latex additives.

### ▶ BASIC USE

MULTICURE 905 is used as a bond coat for setting high lug, absorptive, semi-vitreous and vitreous ceramic tiles for service in residential and commercial (interior and exterior) applications. It is used in a mortar bed from 3/32" to 3/16" (2.4 to 5 mm) after the tiles have been properly embedded. MULTICURE 905 has excellent water and impact resistance, is water cleanable, non-flammable, good for exterior work. No presoaking of tiles is necessary. MULTICURE 905 mortar is not affected by prolonged contact with water, but does not form a waterproof barrier. MULTICURE 905 provides a permanent installation with *higher bond strength and lower material and labor costs* than conventional Portland cement mortar beds.

### ▶ AREAS OF USE

Suitable backings, when properly prepared, include plumb and true masonry, concrete, cementitious backer units, cured Portland cement mortar beds, brick, ceramic tile and marble. For interior dry areas only, it may be used over gypsum board and exterior grade plywood.

### ▶ LIMITATIONS

MULTICURE 905 must not be applied directly over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, luan or gypsum mortar beds. Improperly cured or wet plywood, particle board or stripwood surfaces are not considered suitable substrates. When used to install tile in an area that will be continually wet (e.g. *swimming pools, gang showers, etc.*) it is recommended that the complete installation shall be cured a minimum of 14 days and allowed to thoroughly dry before exposure to water. Apply in a temperature range of 40°F to 90°F (4°C to 32°C). Do not allow mortar to freeze for the first 72 hours. Some green or red marbles may warp when installed with setting materials containing water, causing loss of bond and/or damage to the finish. These marbles must be set with COLORSET EPOXY 931.

### ▶ APPLICABLE STANDARDS

Conforms to requirements for dry set mortars found in ANSI A118.1, ANSI A118.4, ANSI A108.5 and C.T.I. 64-1.  
Color — White or Gray.

Texture — Powder, consisting of Portland cement, graded sand, organic and inorganic chemicals.

### ▶ PACKAGING

50 lb. (22.7 kg) bags, 5 lb. (2.26 kg) and 10 lb. (4.53 kg) boxes.

### INSTALLATION

#### ▶ PREPARATORY WORK

All surfaces on which tiles are to be set must be dry, structurally sound and not subject to temperatures below 40°F (4°C) or above 100°F (38°C). Detailed installation procedures may be found in the TCA Handbook and ANSI A108.5. Surfaces must be dry and free of all grease, oil, dirt, dust, curing compounds, sealers, coatings, efflorescence, old adhesive residues, gypsum based underlayments and any other foreign matter.

#### ▶ CEMENTITIOUS SUBSTRATES

Cleaning may be accomplished via mechanical sanding, scraping or chipping. Surfaces may be cleaned with muriatic acid (*use proper precautions*) if thoroughly flushed and neutralized. Smooth, steel troweled concrete surfaces must be roughened to ensure a good bond. It is advisable to dampen dry porous concrete before installing ceramic tile with MULTICURE mortar. Do not leave puddles or standing water on surfaces.

#### ▶ PLYWOOD SUBSTRATES

All wood flooring when placed over conventional floor joist or other systems should be of a design and thickness so as to maintain a substrate deflection not to exceed 1/360 of the span, including live and dead load. Further, the flooring to receive the MULTICURE 905 mortar should be exterior grade plywood only, secured with screw type nails and glued where possible. An expansion gap of 3/16" (5 mm) shall be left between sheets of plywood and between the plywood edges and all materials which they abut to allow for expansion. These expansion gaps shall remain empty when the installation is complete. In addition, all wooden surfaces must be for interior use only and protected from exposure to water.

### ▶ NON-CEMENTITIOUS SUBSTRATES

Surfaces such as stripwood and old plaster or painted surfaces that provide bonding problems should be covered with a cleavage membrane topped with a 3/8" to 3/4" (9.5 to 19 mm) reinforced mortar bed for walls and a 1 1/4" (31.8 mm) reinforced mortar bed for floors. After a minimum of 20 hours, the dry-set mortar may be applied to the mortar bed.

### ▶ CERAMIC TILE SUBSTRATES

It is absolutely essential that the existing tile be well bonded. The surface must be prepared in accordance with the requirements for cementitious surfaces. It is also necessary to abrade the surface to assure proper bonding.

### ▶ EXPANSION JOINTS

Expansion joints shall be installed in accordance with local building codes. See EJ 171 in TCA Handbook for detailed specifications. Expansion joints, control joints and cold joints shall never be bridged with setting material.

### ▶ MIXING

MULTICURE 905 dry powder should be added to clean, potable water only at the rate of approximately 1 1/2 gallons (5.7 L) per 50 lb. (22.7 kg) bag. Mix thoroughly until smooth and let mortar slake for 15 minutes, then remix. If a mechanical mixer is used, it must be mixed at a low RPM (300 or less) so as not to entrap air in the mortar. Do not add water or additional powder after slaking period.

The proper mortar consistency is such that when applied with a notch trowel to the substrate, the ridges formed in the mortar will not flow or slump.

Do not use mortar after initial set in bucket. During use, remix mortar occasionally.

### ▶ APPLICATION

Spread mortar with flat side of trowel to key into substrate. Then, apply additional mortar to a depth sufficient to be notch with a suitable trowel that will leave only enough mortar to give 100% contact with back of tile and a subsequent mortar bed of 3/32" to 3/16" (2.4 to 5 mm). With high lug tiles, "back buttering" may be required to ensure 100% coverage to back of tiles. During the setting of tile, it is advisable to occasionally remove a tile to be sure mortar has not skinned over and sufficient transfer is being made. It is also required that tiles be embedded to obtain good transfer of mortar to tile and for proper alignment. Do not adjust tiles in mortar after they have been set past 20 minutes.

NOTE: As a practical test it is recommended that 3 or more separate 12 inch square (.3 m<sup>2</sup>) areas of tile be bonded to the properly prepared surface with the actual tile and bonding material that will be used on the finished installation. These should be allowed to cure for 3 to 7 days and then removed with a hammer and chisel. At this point, one can determine if adequate bond has been obtained or if a problem exists.

► **CLEANING**

Water is all that is needed to remove uncured mortar.

► **CURING AND GROUTING**

A minimum cure is obtained in 12 - 24 hours, depending on the ambient temperatures. Grouting can be done before the mortar takes its final set if caution is used not to break the plastic mortar bond to the tile. Normal grouting should be done 48 hours later.

► **WARRANTY**

MULTICURE 905 is included in C-Cure's Five Year System Warranty. For terms and conditions see Warranty Document #WRTDS.

# MultiCure<sup>®</sup> 905

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MULTICURE 905 TECHNICAL DATA				
TEST			REQUIREMENT	TYPICAL VALUES
*A. Open Time @ 70°F (21°C)				15 Minutes
*B. Adjustability @ 70°F (21°C)				20 Minutes
*C. Bucket Life @ 70°F (21°C)				9 Hours
D. Compressive Strength ASTM C-109				>3500 psi (246 kg/cm <sup>2</sup> )
E. Shear Bond ANSI A118.1				
Non-Vitreous Tile	7 Days		>300 psi (21 kg/cm <sup>2</sup> )	>600 psi (42 kg/cm <sup>2</sup> )
	28 Days		>300 psi (21 kg/cm <sup>2</sup> )	>750 psi (53 kg/cm <sup>2</sup> )
Vitreous (Paver) Tile	7 Days		>100 psi (7 kg/cm <sup>2</sup> )	>300 psi (21 kg/cm <sup>2</sup> )
	28 Days		>150 psi (11 kg/cm <sup>2</sup> )	>450 psi (32 kg/cm <sup>2</sup> )
Non-Vitreous Tile (over wood)	7 Days		N/S	>250 psi (18 kg/cm <sup>2</sup> )
	28 Days		N/S	>300 psi (21 kg/cm <sup>2</sup> )
F. Safety—CAUTION: May cause eye, skin or lung injury. Contains free silica. Prolonged exposure to dust may cause delayed lung disease (silicosis). Eliminate exposure to dust. Use NIOSH approved mask for Silica dust. Contains Portland cement. If any cement or cement mixtures get into eye, flush immediately and repeatedly with water, and consult a physician promptly. Freshly mixed cement, mortar, concrete or grout may cause skin injury. Avoid contact with skin where possible and wash exposed skin areas promptly with water.				
KEEP OUT OF REACH OF CHILDREN				
G. Storage Life—One year if kept dry in sealed bag.				

\*These values reflect the results of practical testing methods closely associated with applications in the field.

COVERAGE			
PRODUCT	SQUARE FEET (M <sup>2</sup> ) PER 50 LB. (22.7 KG) BAG		
	1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) Square-Notch Trowel	1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) Square-Notch Trowel	1/2" x 1/2" x 1/2" (13 x 13 x 13 mm) Square-Notch Trowel
MULTICURE <sup>®</sup> 905	77 (7.1)	66 (6.1)	40 (3.7)

### GUARANTEE

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