



Advanced Poly-Fusion Technology

M-Flex Strata® 914

Flexible Latex-Portland Cement Mortar — EGP

PRODUCT DESCRIPTION

PRO M-FLEX STRATA® 914 is a flexible, latex-Portland cement mortar that is composed of an integral blend of special diverse dry polymers, plasticizers, Portland cement and sand. When cured, each separate polymer imparts distinct characteristics which compliment the other polymers forming a union which provides for 48% higher flexural strength than conventional mortars, thus furnishing the ultimate in a single component latex-Portland cement mortar. PRO M-FLEX STRATA 914 will reduce tile cracking when used on substrates subjected to limited deflection and vibration. It may be applied directly over in plane, minor shrinkage cracks up to 1/16" (1.6 mm) in width with no special preparation procedures. Our Advanced Poly-Fusion Technology provides superior flexibility when mixed with water only. PRO M-FLEX STRATA 914 may be used to bond all types of ceramic tile and natural stone over a variety of substrates including exterior grade plywood. Because of its superior flexibility and bond strength, PRO M-FLEX STRATA 914 is recommended for both interior and exterior floor and wall installations, and in particular, those subjected to freeze-thaw conditions. Although PRO M-FLEX STRATA 914 can span minor shrinkage cracking, structural cracks in excess of 1/16" (1.6 mm) may cause tile failure and should be addressed prior to installation.

DIRECTIONS

▶ BASIC USE

PRO M-FLEX STRATA 914 is used as a bond coat for setting absorptive, semi-vitreous, vitreous and impervious ceramic tiles such as porcelain and natural stone for service in residential and commercial use. It is used in a mortar bed from 3/32" to 3/16" (2.4 to 4.8 mm) after the tiles have been properly embedded. PRO M-FLEX STRATA 914 has excellent water and impact resistance, is water cleanable, non-flammable, good for exterior work and requires no presoaking of tiles. PRO M-FLEX STRATA 914 mortar is not affected by prolonged contact with water, but does not form a waterproof barrier. PRO M-FLEX STRATA 914 provides a permanent installation with higher bond and flexural strength and lower material and labor costs over 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 stone. For interior dry areas only, PRO M-FLEX STRATA 914 may be used over exterior grade

plywood, scarified plastic laminates, gypsum board (dry interior walls only) and properly prepared old cutback adhesive (see C-Cure Technical Bulletin #102). PRO M-FLEX STRATA 914 may also be used over properly prepared vinyl composition flooring (dry interior areas only) excluding cushioned backed flooring. (See C-Cure Technical Bulletin #107 for proper preparation procedures and limitations).

▶ LIMITATIONS

PRO M-FLEX STRATA 914 must not be applied directly over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, luan plywood, gypsum mortar beds or gypsum-based underlayments. 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. Not recommended for setting green, black or resin-backed marble. Use COLORSET EPOXY 931. Marble shall not be applied over substrates with deflection greater than L/720 of the span.

▶ APPLICABLE STANDARDS

Conforms to requirements for latex Portland cement mortars found in ANSI A108.5, A118.4 and A118.11.

▶ PACKAGING

50 lb. (22.7 kg) multi-wall bags.

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 C-CLEAN 985 (Sulfamic Acid) if thoroughly flushed and neutralized. (Use proper precautions.) Smooth, steel-troweled concrete floors must be roughened to ensure a good bond. It is advisable to dampen dry, porous concrete before installing ceramic tile with PRO M-FLEX STRATA 914 mortar. Do not

leave puddles or standing water on surfaces. Substrate deflection should not exceed 1/240 of the span.

▶ NON-CEMENTITIOUS SUBSTRATES

Surfaces such as strip wood 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 1/4" (32 mm) reinforced mortar bed for floors. After a minimum of 20 hours, the dry-set mortar may be applied to the mortar bed. Plastic laminates shall be well bonded to the substrate and the surface well abraded. The surface must be prepared in accordance with the requirements for cementitious surfaces.

▶ PLYWOOD SUBSTRATES

All wooden flooring, when placed over conventional floor joist or other systems, should be of a design and thickness so as to maintain a substrate of deflection not to exceed 1/360 of span, including live and dead load. Further, the flooring to receive the PRO M-FLEX STRATA 914 mortar should be exterior grade plywood only, secured with screw-type nails and glued where possible. A gap of 3/16" (4.8 mm) shall be left between sheets of plywood and between the plywood edges and all materials which they abut to allow for expansion. These 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.

▶ 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.

▶ MOVEMENT JOINTS

Expansion joints shall be installed in accordance with local building codes. See EJ171 in TCA Handbook for detailed specifications. Expansion joints, contraction joints and construction joints shall never be bridged with setting material.

▶ MIXING

PRO M-Flex Strata 914 dry powder should be added only to clean, potable water at the rate of approximately 1 1/2 gallons (4.7 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 done at a low RPM (300 or less) to avoid entrapping air into the mortar. Do not add water, latex 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 notched with a suitable trowel that will leave only enough mortar to give 100% contact with back of tile and a subsequent mortar bed 3/32" to 3/16" (2.4 to 4.8 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 three (3) or more separate 12 inch square (.3 m²) 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 three (3) to seven (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

A minimum cure is obtained in 24 hours, depending on ambient temperatures. Do not allow any traffic on the installation for 24 hours after setting. With the use of kneeling boards, 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

PRO M-FLEX STRATA 914 is included in C-Cure's Five Year System Warranty. For terms and conditions see Warranty Document #WRTDS.



M-Flex Strata® 914

Flexible Latex-Portland Cement Mortar — EGP

PRO M-FLEX STRATA 914 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			>3000 psi (211 kg/cm ²)
E. Shear Bond ANSI A118.1			
Non-Vitreous Tile	7 Days	>300 psi (21 kg/cm ²)	>500 psi (35 kg/cm ²)
	28 Days	>300 psi (21 kg/cm ²)	>600 psi (42 kg/cm ²)
Vitreous (Paver) Tile	7 Days	>100 psi (7 kg/cm ²)	>250 psi (18 kg/cm ²)
	28 Days	>150 psi (11 kg/cm ²)	>400 psi (28 kg/cm ²)
Non-Vitreous Tile (over wood)	7 Days	N/S	>250 psi (13 kg/cm ²)
	28 Days	N/S	>400 psi (28 kg/cm ²)
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 ²) 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
M-FLEX STRATA 914	77 (7.1)	66 (6.1)	40 (3.7)

GUARANTEE

The recommendations, suggestions, statements and technical data are based on the best knowledge available to C-Cure and are given for informational purposes ONLY and without any responsibility for their use.

C-Cure MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT SOLD HEREIN except that the quality of the ingredients shall be in accordance with C-Cure specifications. It is expressly understood and agreed that the buyer's sole and exclusive remedy shall be replacement of defective products and under no circumstances shall C-Cure be liable for incidental or consequential damages. C-Cure neither assumes nor authorizes any others to assume for it any liability with respect to furnishing of the product. Handling and use of the product are beyond the control of C-Cure, therefore, no warranty is made, expressed or implied, as to the results obtained from the use of the product or against any claims for infringement of patents resulting from the use of the product.

This writing constitutes a complete and exclusive statement of the understanding between C-Cure and buyer. There were no oral agreements or warranties, expressed or implied, collateral to or affecting the furnishing of the product. This understanding shall not be modified except in writing by an officer of C-Cure.

Members of National Tile Contractors Association,

Materials & Methods Standards Association, Ceramic Tile Distributors Association.

NOTICE: The information in this bulletin is presented in good faith, but no warranty, express or implied, is given nor is freedom from any patent. In as much as any assistance furnished by C-Cure with reference to the safe use and disposal of its products is provided without charge, C-Cure assumes no obligation or liability therefore, except to the extent that any such assistance shall be given in good faith.

C-CURE
Seal Beach, CA 90740
800-895-2874
www.c-cure.com