

Dry-Set Portland Cement Mortar

PRODUCT DESCRIPTION

TILESET® is an economical factory blend of Portland cement, extenders and additives. TileSet produces an excellent bond by use of the dry-set mortar method for the installation of ceramic tile.

▶ BASIC USE

TILESET 910 is used as a bond coat for setting absorptive, semi-vitreous and non-vitreous ceramic tile for service in residential and commercial use. It is used in a mortar bed as thin as 3/32" (2.4 mm) after the tiles have been properly embedded. TILESET 910 is water cleanable, non-flammable and good for exterior work. No presoaking of tiles is necessary. TILESET 910 mortar is not affected by prolonged contact with water, but does not form a waterproof barrier. TILESET 910 is a permanent installation featuring higher bond strength and lower material and labor costs than conventional Portland cement mortar beds. If extra high strengths are desired or a mortar meeting ANSI A118.4 specifications is needed, use CURECRYLIC® PREMIUM 939 admixture. Areas subject to freeze-thaw cycling should also use the CURECRYLIC additive.

TILESET 909 NONSANDED is used as a bond coat for setting absorptive, semi-vitreous and non-vitreous ceramic tile for service in residential and commercial use. It is used in a mortar bed as thin as 3/32" after the tiles have been properly embedded. TILESET 909 NONSANDED has excellent water and impact resistance, is water cleanable, non-flammable, good for exterior work and requires no soaking of tiles. TILESET 909 NONSANDED mortar is not affected by prolonged contact with water, but does not form a waterproof barrier. TILESET 909 NONSANDED provides a permanent installation with higher bond strength, and lower material and labor costs than conventional Portland cement mortar beds.

TILESET 909 NONSANDED requires the addition of sand at the jobsite before it is acceptable for use. To set vitreous and/or low absorption tile, one and one half (1½) volumes of medium textured sand (30 mesh) must be dry blended to each volume of TILESET 909 NONSANDED before the addition of water. To set non-vitreous or absorptive tile, an equal volume of a fine textured sand (60 mesh) must be dry blended to each volume of TILESET 909 NONSANDED before adding water.

▶ AREAS OF USE

Suitable backings, when properly prepared, include plumb and true masonry, concrete, gypsum board (*dry interior walls only*), cementitious backer units, cured Portland cement mortar beds, brick, ceramic tile and marble.

▶ LIMITATIONS

TILESET 910 and TILESET 909 NONSANDED must not be applied directly over wood, asphalt sheathing, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, luan plywood or gypsum mortar beds. Apply in a temperature range of 40°F to 100°F (4°C to 32°C). Do not allow mortar to freeze for the first 72 hours. Not recommended for setting green or black colored marble. These marbles must be set with COLORSET EPOXY SYSTEM 931.

▶ APPLICABLE STANDARDS

Conforms to requirements for dry-set mortars found in ANSI A118.1, ANSI A108.5 and C.T.I. 64-1. Conforms to ANSI A118.4 requirements when mixed with CUREMIX® 937 and CURECRYLIC® PREMIUM 939, (C-Cure admixtures). TILESET can also bond tiles to properly prepared exterior grade plywood (EGP) when mixed with CURECRYLIC PREMIUM 939.

Color — Gray.

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

▶ PACKAGING

TILESET 910 — 50 lb. (22.7 kg) bags.

TILESET 909 NONSANDED — 25 lb. (11.3 kg) 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 muriatic acid (*use proper precautions*) if thoroughly flushed and neutralized. 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 TILESET mortar. Do not leave puddles or standing water on surfaces.

▶ NON-CEMENTITIOUS SUBSTRATES

Surfaces such as 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 1¼" (32 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. Use CURECRYLIC PREMIUM 939 in lieu of water for this type of installation.

▶ EXPANSION JOINTS

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

▶ MIXING

TileSet dry powder should be added to clean, potable water or to CUREMIX 937 or CURECRYLIC PREMIUM 939 at the rate of approximately 1½ gals. (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 done at a low RPM (150) so as not to entrap 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 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 10 - 15 minutes.

NOTE: As a practical test, it is recommended that 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 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 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.

GUARANTEE

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TileSet 910

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TILESET 910 TECHNICAL DATA				
TEST			REQUIREMENT	TYPICAL VALUES
*A. Open Time @ 70°F (21°C)				6 Minutes
*B. Adjustability @ 70°F (21°C)				9 - 12 Minutes
*C. Bucket Life @ 70°F (21°C)				4 Hours
D. Compressive Strength ASTM C-109				>2000 psi (141 kg/cm ²)
E. Shear Bond ANSI A118.1				
Non-Vitreous Tile	7 Days	>200 psi (14 kg/cm ²)	>250 psi (18 kg/cm ²)	>250 psi (18 kg/cm ²)
	28 Days	>250 psi (18 kg/cm ²)	>350 psi (25 kg/cm ²)	>350 psi (25 kg/cm ²)
Vitreous (Paver) Tile	7 Days	>50 psi (4 kg/cm ²)	>150 psi (11 kg/cm ²)	>150 psi (11 kg/cm ²)
	28 Days	>100 psi (7 kg/cm ²)	>250 psi (18 kg/cm ²)	>250 psi (18 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
TileSet 910	81 (7.5)	70 (6.5)	42 (3.9)

Members of National Tile Contractors Association,
Materials & Methods Standards Association, Ceramic Tile Distributors Association.

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