



Latex-Portland Cement MultiSet 917

Dry-Set Cement Mortar

PRODUCT DESCRIPTION

MULTISET is the economical polymer-modified dry-set mortar designed for the bonding of all types of tiles. It may be used for either walls or floors for both interior and exterior applications where a liquid latex-modified mortar is recommended. MULTISET is a blend of Portland cement, sand and special dry latex additives that significantly improve bond strength and freeze-thaw stability — performance characteristics typically available only through the addition of liquid latex additives to dry-set mortar.

▶ BASIC USE

MultiSet is used as a bond coat for setting high lug, absorptive, semi-vitreous and vitreous ceramic tiles 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. MULTISET has excellent water and impact resistance, is water cleanable, non-flammable, good for exterior work and requires no soaking of tiles. MULTISET mortar is not affected by prolonged contact with water, but does not form a waterproof barrier. MULTISET 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 (on vertical surfaces only).

▶ LIMITATIONS

When bonding glass tile or large format porcelain tile (13"x 13" or larger) use PORCELAIN STONE & TILE 948 with THINSET 911 Portland Cement Mortar. MULTISET 917 must not be applied directly over wood, resilient or sheet good flooring, vinyl floor tile (VCT or VAT), asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, luan plywood 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. MultiSet 917 is designed for thinset applications and is not recommended for use as a medium bed mortar. Use FULL CONTACT 907 medium-bed latex Portland cement mortar. MULTISET 917 is not recommended for use over PRO-RED 963.

▶ APPLICABLE STANDARDS

Conforms to requirements for dry-set mortars found in ANSI A118.1, ANSI A118.4, ANSI A108.5 and CTI64-1.

Color — White or Gray.

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

▶ 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) during installation. 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 if thoroughly flushed and neutralized. (Use proper precautions.) 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 MULTISET mortar. Do not leave puddles or standing water on surfaces.

▶ NON-CEMENTITIOUS SUBSTRATES

Surfaces such as stripwood and old plaster or painted surfaces that provide bonding problems should be covered 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.

▶ 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 EJ171 in TCA Handbook for detailed specifications. Expansion joints, control joints and cold joints shall never be bridged with setting material.

▶ MIXING

MultiSet dry powder should be added to clean, potable water only at the rate of approximately 1 1/2 gal. (5.7L) 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" 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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MultiSet 917

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MULTISET 917 TECHNICAL DATA			
TEST	REQUIREMENT		TYPICAL VALUES
*A. Open Time @ 70°F (21°C)			12 Minutes
*B. Adjustability @ 70°F (21°C)			12 - 15 Minutes
*C. Bucket Life @ 70°F (21°C)			8 Hours
D. Compressive Strength ASTM C-109			>3200 psi (225 kg/cm ²)
E. Shear Bond ANSI A118.1			
Non-Vitreous Tile	7 Days	>300 psi (21 kg/cm ²)	>375 psi (26 kg/cm ²)
	28 Days	>300 psi (21 kg/cm ²)	>475 psi (33 kg/cm ²)
Vitreous (Paver) Tile	7 Days	>100 psi (7 kg/cm ²)	>175 psi (12 kg/cm ²)
	28 Days	>150 psi (11 kg/cm ²)	>275 psi (19 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
MULTISET 917	77 (7.1)	66 (6.1)	40 (3.7)

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

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