



## PRODUCT DESCRIPTION

PRO M-LITE 929 TILE & STONE MORTAR offers high flexibility and bond strength for a wide variety of floor and wall tile installations. Excellent for setting large format tile or stone, PRO M-LITE 929 will not sag or slip on walls and offers non-slump performance for floor installations.

PRO M-LITE 929 is 40% lighter than traditional mortars, providing excellent handling characteristics. A 30 lb. (13.6 kg) bag covers the same area as a 50 lb. (22.7 kg) bag of traditional mortar. Formulated with recycled material – contributes to LEED certification.

## DIRECTIONS

### ▶ AREAS OF USE

Suitable backings, when properly prepared, include plumb and true masonry, concrete, cementitious backer units, cured Portland cement mortar beds, brick, Pro-RED 963 WATERPROOFING MEMBRANE, sheet vinyl flooring/VCT, plastic laminates, ceramic tile and stone. For interior dry areas only, it may be used over gypsum board (on vertical surfaces only) and exterior grade plywood (EGP) in residential and light commercial areas only.

### ▶ TILE TYPES

Vitreous, semi-vitreous or absorptive tile: Ceramic, mosaic, quarry, cement, porcelain and net-mounted glass mosaic tile, brick and mini-brick, pre-cast terrazzo and natural stone tile (not intended for use with resin-backed or moisture sensitive stone, see Limitations).

### ▶ LIMITATIONS

PRO M-LITE 929 must not be applied directly over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, luan plywood, hardwood, sponge-back vinyl flooring, fiberglass, OSB panels, gypsum mortar beds or gypsum-based underlayments or patching compounds. 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. Do not allow mortar to freeze for the first 72 hours. PRO M-LITE 929, when used over approved plywood surfaces, should be considered a light performance product as outlined by ASTM Test Method C627-70. Not recommended for setting green, black or resin-backed marble. Use COLORSET EPOXY 931.

### ▶ APPLICABLE STANDARDS

Exceeds ANSI A118.4 and A118.11 without the need for additives.

### ▶ PACKAGING

30 lb. (13.6 kg) bags.

## INSTALLATION

### ▶ PREPARATORY WORK

All surfaces on which tiles are to be set must be dry, structurally sound and not subject to surface or ambient temperatures below 40°F (4°C) or above 90°F (32°C) during installation. Detailed installation procedures may be found in the TCNA Handbook and ANSI A108.5. Surfaces must be dry and free of all grease, oil, dirt, dust, curing compounds, sealers, coatings, paint, 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 surfaces must be roughened to ensure a good bond. It is advisable to dampen dry porous concrete before installing ceramic tile with PRO M-LITE 929. 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 1/4" (32 mm) reinforced mortar bed for floors. After a minimum of 20 hours, PRO M-LITE 929 may be applied to the mortar bed.

### ▶ PLYWOOD SUBSTRATES

All wood flooring, when placed over conventional floor joist or other systems, must be of a design and thickness so as to maintain a substrate deflection not to exceed L/360 of the span, including live and dead load, L/720 for natural stone. Further, the flooring to receive PRO M-LITE 929 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. The maximum mortar thickness over plywood shall not exceed 1/4" (6 mm).

### ▶ CEMENT BACKERBOARD

As a superior alternative to an additional layer of plywood, C-CURE BOARD 990 may be installed over plywood subfloors. Refer to the respective data sheet for installation information.

### ▶ 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, control joints and cold joints should never be bridged with setting material. They must be brought through the tile work and filled with an appropriate elastomeric sealant.

### ▶ MIXING

Thoroughly mix approximately 7 quarts (6.62 L) clean, cool water and 30 lb. (13.6 kg) of PRO M-LITE 929 together to a smooth, paste consistency. Mix by hand or use a low speed (150 - 200 RPM) 1/2" (13 mm) drill. Let slake or stand 5 - 10 minutes, stir again and use. Stir occasionally to keep fluffy, but do not add more water. When properly mixed, troweled ridges will stand with no slump.

### ▶ APPLICATION

Installation to conform with ANSI A108.5. Spread mortar with flat side of trowel to key into substrate; then, apply additional mortar to a depth sufficient to be notched in one direction 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 3/4" (2.4 to 19 mm). With high lug or large format 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 15 minutes.

NOTE: As a practical test, it is recommended that three (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 three to seven 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 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 24 - 48 hours later.



# M-Lite 929 Tile & Stone Mortar

## PRO M-LITE 929 TILE & STONE MORTAR TECHNICAL DATA

*A. Open Time @ 70°F (21°C)	12 Minutes
*B. Adjustability @ 70°F (21°C)	55 - 60 Minutes
*C. Bucket Life @ 70°F (21°C)	4 Hours
*D. Compressive Strength ASTM C-109 28 Days	2800 psi (197 kg/cm <sup>2</sup> )
*E. Shear Bond A118.4 and A118.11 Bisque Tile 28 Days	600 psi (42.2 kg/cm <sup>2</sup> )
Porcelain Tile 28 Days	450 psi (31.6 kg/cm <sup>2</sup> )
Quarry Tile to Plywood 28 Days	250 psi (17.6 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 30 LB. (13.6 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 6 x 9.5 mm) Square-Notch Trowel	1/2" x 1/2" x 1/2" (13 x 13 x 13 mm) Square-Notch Trowel
PRO M-LITE 929 TILE & STONE MORTAR	90 - 100 (8.4 - 9.3)	63 - 70 (5.6 - 6.5)	45 - 50 (4.2 - 4.6)

## GUARANTEE

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