

1. Product Name

820 Mer-Lite

(MER-LITE POLYMER MODIFIED LIGHT WEIGHT PORTLAND CEMENT FLEXIBLE EGP MORTAR)

2. Manufacturer

Mer-Krete Systems
 501 Van Ness Avenue
 Torrance, CA 90501
 PH (323) 775-2461
 FAX (310) 320-4938
 1-(800) 851-6303
www.merkrete.com

3. Product Description

BASIC USE

Mer-Krete 820 Mer-Lite Thin Set is a superior grade polymer modified Portland cement flexible EGP thin-set mortar. **Mer-Krete 820 Mer-Lite Thin Set** has excellent workability, non slump and non sag performance when installing ceramic tile and natural stone. It is recommended for use in the thin set installation method for absorptive, semi-vitreous vitreous tile, ceramic, mosaic, quarry, thin brick, natural stone, and porcelain and glass tiles over properly prepared substrates. In dry areas, it is suitable for exterior grade plywood and gypsum board.

Uses

Mer-Krete 820 Mer-Lite Thin Set can be used as a thin set mortar for ceramic tile and natural stone for both walls and floors in interior and exterior applications. It is recommended for use in the thin set installation method for absorptive, semi-vitreous, vitreous tile and impervious ceramic tile such as porcelain tile and natural stone over properly prepared masonry, concrete, cement backer board, and existing ceramic tile. In interior dry areas, it is suitable for gypsum board and plywood substrates. It is to be used as a thin-set from 3/32" to 3/4" after the tiles have been properly beat in. **820 Mer-Lite Thin Set** is suitable for both residential and commercial construction.

Advantages

- Freeze thaw stable
- Interior and exterior
- Increased flexibility
- Non sag for wall areas
- Bonds to most surfaces
- Contributes to LEED projects
- Lightweight and easy to trowel
- Superior adhesion for porcelain tile.
- Thin Set or Medium Bed performance
- Available in both gray and white colors.
- Excellent for walls and large format tile
- Same coverage as a typical 50# mortar
- Exceeds ANSI A 118.4 for Latex Portland Cement Mortar and 118.11 for EGP Latex Portland Cement Mortar.

Suitable Substrates

Concrete	Concrete Masonry
Cement Mortar Beds	Cement Plaster
Ceramic Tile and Stone	Brick Masonry
Cement Backer Board**	Cement Terrazzo
Exterior Grade Plywood*	Gypsum Wallboard*
Gypsum Mortar Bed***	

*Interior Use Only

** Consult cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use.

*** Mer-Krete's **Fracture-Guard 5000** crack isolation membrane is required for this installation. Consult Mer-Krete's Technical Department for gypsum mortar bed recommendations using **Mer-Krete Fracture-Guard 5000** membrane.

Limitations

Do not use **820 Mer-Lite Thin Set** below 40°F (4°C) or above 95°F (35°C). Use caution; do not allow mortar to freeze for the first 72 hours. Do not soak tiles previous to installation. **820 Mer-Lite Thin Set** must not be used to apply over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, or other unstable substrates. Improperly cured or wet plywood, particle board or strip wood are not suitable substrates. Installations that will be continually wet like swimming pools, fountains and gang showers, the completed installation should be cured a minimum of 14 days and allowed to dry before exposure to water. For white or light colored marbles use **820 Mer-Lite Thin Set** White mortar. Some dimensional stone tile like green and red marbles may warp when installed with water based setting materials. These water sensitive stone tiles should be installed with **Mer-Krete ProEpoxy**. For use of **820 Mer-Lite Thin Set** over additional substrates or situations not mentioned in these instructions, contact Mer-Krete's Technical department.

4. Technical Data

APPLICABLE STANDARDS

Mer-Krete's 820 Mer-Lite Thin Set meets or exceeds industry requirements ANSI A118.4 for Latex Portland Cement Mortar and 118.11 for EGP Latex Portland Cement Mortar. Follow ANSI A108.5 for installation.

5. Installation

SURFACE PREPERATION

All surfaces must be between 40°F (4°C) to 95°F (35°C) and structurally sound (deflection not to exceed 1/360 of the span), dry clean and free from oil, grease, wax, paint, old adhesives, sealers and curing compounds. Any contaminates which inhibit proper bond must be removed. Substrate preparation should be completed

following ANSI A108.01 (General Requirements: Subsurfaces and Preparation by Other Trades). All substrates should be plumb and true, surface deviation should not exceed ¼" in 10'. Patching, leveling or areas requiring a mortar bed should be prepared using Mer-Krete's Underlayments. Movement (Expansion) joints should be provided to comply with TCNA method EJ 171.

Plywood Substrates

Maximum joist spacing should be 16" on center. Plywood should be exterior grade only. Maintain a gap of 3/16" between plywood underlayment sheets edges and all that abut walls, columns, posts and adjacent sheets. All plywood installations should be use in interior areas only and protected from exposure to moisture.

Cement Substrates

All concrete substrates should be cured a minimum of 28 days. Smooth steel troweled floors should be roughed up using mechanical chipping, scraping or shot blasting. Dampen porous or dry concrete previous to installation of tile. Do not leave puddles or standing water.

Membranes

820 Mer-Lite is suitable over Mer-Krete Systems membranes like Hydro-Guard 2000, Hydro-Guard One, Fracture Guard 5000, Sound Shield 7000, Sound Shield PNS 40 and Sound Shield PNS 90. Low absorption membranes may require longer cure times.

Cement Backer Board

Follow cement board manufacturer's instructions.

Mixing

For excellent non sag and medium bed characteristics:
In a clean container, add approximately 5 quarts (4.7 liters) of clean potable water. Then add the contents of the 30 lb. (13.608 kg) **820 Mer-Lite Thin Set** mortar. Mix thoroughly by hand or with a slow speed mixer to a smooth, thick, trowelable consistency. Allow mortar to slake for approximately 5 to 10 minutes, and then remix before using. Remix without adding additional water or powder.

For thin set characteristics:

In a clean container, add approximately 5 ½ quarts (5.2 liters) of clean potable water. Then add the contents of the 30 lb. (13.608 kg) **820 Mer-Lite Thin Set** mortar. Mix thoroughly by hand or with a slow speed mixer to a smooth, thick, trowelable consistency. Allow mortar to slake for approximately 5 to 10 minutes, and then remix before using. Remix without adding additional water or powder.

Mortar consistency shall be such that when applied with the recommended notched trowel to the substrate, the ridges formed in the mortar do not flow or slump. During use, stir mortar mix occasionally. Do not temper with additional water. Do not add latex liquid to **820 Mer-Lite Thin Set**.

Application

Apply mortar to the substrate with the flat side of the trowel, with enough pressure to firmly work into the surface. With a notched trowel, immediately follow with a heavier coat of material using the appropriate trowel and enough mortar to provide 100% coverage to the back of the tile. Some extruded or lug back tiles back-buttering of tiles may be required. Do not spread more mortar than can be covered in 20 minutes or before the mortar skins over. It is advised that during the installation, remove a tile to insure the mortar has not skinned over and check the tile and substrate mortar coverage. Comb the mortar using an appropriate notched trowel in one direction. Place tiles in mortar, slide back and forth perpendicular to the ridges (NTCA "Trowel and Error" method) to insure proper coverage. Do not adjust tiles set in mortar after 15 minutes.

Cleaning

Water is all that is needed to remove any uncured mortar from tiles, tools and equipment.

6. Availability

Mer-Krete 820 Mer-Lite Thin Set is available at leading tile houses and construction distributors. Contact Mer-Krete Systems for the name of the nearest dealer.

7. Warranty

5 year, 10 year and Limited Lifetime warranties are available. Contact Mer-Krete technical department for specific warranty information. Mer-Krete Systems warrants that this product meets applicable ANSI standards in force at the time of manufacture.

8. Maintenance

None required, but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. Technical Services

Mer-Krete Systems maintains Technical Field Representatives available throughout the country. Call 1-(800) 851-6303 for the nearest representative.

10. Filing Systems

Mer-Krete Architectural Product Catalog and CD Rom.
www.merkrete.com