



820 DUSTLESS MERLITE

SUPERIOR GRADE LIGHTWEIGHT LHT MORTAR

Merkrete's 820 DUSTLESS Merlite features innovative, patented DUSTLESS Technology (DLT) producing significantly less dust than ordinary thin sets to promote cleaner working conditions and reduce mess. It uses less water, is creamier and easier to spread.

- Superior-grade, lightweight mortar with excellent bond; ideal for large and heavy tile and natural stone
- Non-sag, non-slip formula holds wall tiles in place
- 30-lb. bag provides same coverage as a typical 50-lb. bag of mortar
- Exceeds ANSI A118.15, A118.4 and A118.11



1. Product Name

Merkrete 820 DUSTLESS Merlite

2. Manufacturer

Parex USA, Inc.

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3. Product Description

820 DUSTLESS Merlite is a premium-grade, single-component, polymer-modified mortar for interior and exterior setting of large and heavy tile and natural stone. 820 DUSTLESS Merlite may be used from $\frac{3}{32}$ " to $\frac{3}{4}$ " (2.4 mm to 19 mm) thickness to provide exceptional support under large and heavy tiles and stone. 820 DUSTLESS Merlite provides 40% more coverage than a standard 50-lb. thin set mortar per pound. It contains up to 25% post-consumer recycled content by weight contributing to LEED® certification. 820 DUSTLESS Merlite meets or exceeds ANSI A118.15TE, A118.4TE and ANSI A118.11 requirements when mixed with water.

Uses

- Most interior and exterior residential and commercial installations on floors and walls
- Installation of ceramic and porcelain tile, glass, quarry tile, pavers, Saltillo tile, and most types of marble, granite and natural stone
- Supports large and heavy tile for flat, even installations.

Suitable Tile Types

- Brick and thin brick
- Cement-based pre-cast terrazzo
- Impervious porcelain and glass tile
- Natural stone tile
- Vitreous, semi-vitreous or non-vitreous tile: ceramic, mosaic, quarry, cement body tile

Suitable Substrates

- Brick masonry
- Cement backer board¹
- Cement mortar beds
- Cement plaster
- Cement terrazzo
- Ceramic tile and stone
- Concrete
- Concrete masonry
- Exterior grade plywood²
- Gypsum wallboard²
- Merkrete waterproofing and crack isolation membranes
- Merkrete Fracture Guard Uncoupling Mat

¹ Consult cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use

² Interior use only

Packaging

30-lb. bag (13.6 kg.); 48 bags per pallet



Colors

Gray and White

Shelf Life

Maximum 15 months from date of manufacture in unopened package.

Limitations

- Do not use 820 DUSTLESS Merlite below 40° F (4° C) or above 95° F (35° C) and do not allow mortar to freeze for the first 72 hours.
- Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushioned-back vinyl flooring, metal, fiberglass, plastic, OSB panels or other unstable substrates.
- Ensure substrate meets deflection requirements.
- When setting moisture sensitive natural stone cement or agglomerate tile use Merkrete Pro Epoxy Grout.
- Do not use to install resin-backed stone, moisture sensitive natural stone, cement or agglomerate tile; use Merkrete Pro Epoxy Grout and Mortar.
- When setting dimensional stone larger than 12" x 12" (30 x 30 cm), contact Merkrete Technical Services for recommendations regarding subfloor deflection requirements.
- For installations that will be continually wet such as 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.

4. Technical Data

Applicable Standards

American National Standards Institute (ANSI) — ANSI A108.5, A118.4 and A118.11 of the American National Standards for the Installation of Ceramic Tile ASTM International (ASTM)

- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in or [50-mm] Cube Specimens)
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester
- Resilient Floor Covering Institute - (RFCI) Recommended Work Practices for Removal of Resilient Floor Coverings
- Tile Council of North America (TCNA) - TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171
- ISO 13007-2

Property	Test Method	Requirement	Typical Results
Pot Life	---	---	> 2 Hours
Extended Open Time	A118.15 Section 5.3	> 75 psi at 30 Minutes	Pass
4 Week Shear Bond Strength			
Glazed Wall Tile	A118.15 Section 7.1.2	> 450 psi	400 - 500
Porcelain Tile	A118.15 Section 7.2.5	> 400 psi	400 - 500
Quarry Tile to Plywood	A118.11 Section 4.1.2	> 150 psi	225 - 300
LEED v3NC VOC (EQ Credit 4.1)			
VOC		< 65g/l	0 g/l

Environmental Consideration

Merkrete is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product can contribute toward LEED® v3 certification:

- Up to 2 points toward MR Credit 5, Regional Materials
- Up to 2 points toward MR Credit 4, Recycled Content
- Up to 1 point toward IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants

5. Installation

Surface Preparation

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 contaminants that inhibit proper bond must be removed. Substrate preparation should be completed following ANSI A108 AN-2 "General Requirements for Sub-surfaces." All substrates should be plumb and true; surface deviation should not exceed 1/4" in 10'. Patching, leveling or areas requiring a mortar bed should be prepared using Merkrete's Underlayments. Movement (expansion) joints should be provided to comply with TCA method EJ 171.

Substrates

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 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 prior to the installation of tile. Do not leave puddles or standing water.

Cement Backer Board: Follow cement board manufacturer's instructions.

Mixing

Walls: For non-sag and slip resistance: In a clean container, add approximately 5 quarts (4.7 liters) of clean potable water. Then add the contents of the 30-lb. (13.6 kg) 820 DUSTLESS Merlite. Mix thoroughly by hand or with a slow speed mixer (not more than 200 rpm) to a smooth, thick, trowelable consistency. Allow mortar to slake for approximately 5 to 10 minutes, then remix before using without adding additional water or powder.

Floors: For use on floors or as a thin set: In a clean container, add approximately 5.75 quarts (5.4 liters) of clean potable water. Then add the contents of the 30-lb. (13.6 kg) 820 DUSTLESS Merlite. Mix thoroughly by hand or with a slow speed mixer (not more than 200 rpm) to a smooth, thick, trowelable consistency. Allow mortar to slake for approximately 5 to 10 minutes, then remix before using 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 DUSTLESS Merlite.

Application

Apply mortar to the substrate with the flat side of the trowel, using 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. For 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 ensure the mortar has not skinned over and to 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 ensure 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

Merkrete 820 DUSTLESS Merlite is available at most leading tile distributors and installation shops. Contact Merkrete or visit our web site for the name of the nearest dealer at www.merkrete.com.

7. Warranty

5-year, 10-year and Limited Lifetime warranties are available. Contact Merkrete Technical Services or visit our website for specific warranty information. Merkrete warrants that this product meets applicable ANSI standards in force at the time of manufacture.

8. Maintenance

Properly installed product requires no special maintenance.

9. Technical Services

Merkrete technical field representatives are available throughout the country. Call Technical Services at 800-226-2424 for the nearest representative.

10. Filing Systems

Merkrete architectural product information is available either in catalog form, or electronically on our website at www.merkrete.com. Additional product information is available from the manufacturer upon request.

Coverage:

RECOMMENDED NOTCH SIZE		
1/4" x 1/4" 6mm x 6mm	1/4" x 3/8" 6mm x 10mm	1/2" x 1/2" 12mm x 12mm
Ceramics	Quarry Tile, Rough Stone	Large Tile, Marble, Stone
APPROXIMATE COVERAGES		
65-75 Ft ² 6.0-6.9m ²	55-65 Ft ² 5.1-6.0m ²	35-45 Ft ² 3.2-4.2m ²

Coverage depends on trowel notch size, substrate and job conditions.

For more information visit www.merkrete.com/grout_calculator.shtml.



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