



PRO MASTIC 400

PROFESSIONAL TILE ADHESIVE



- For standard wall, floor and countertop installations
- Smooth; easy to trowel
- Ideal for small format tile
- Exceeds ANSI A136.1 Type 1 requirements for intermittent water exposure

1. Product Name

Merkrete PRO MASTIC 400

2. Manufacturer

Parex USA, Inc.

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3. Product Description

Pro Mastic 400 Premium Ceramic Tile Adhesive is a professional formula adhesive with great bond strength. Ideal for small format ceramic, mosaic, porcelain and most gauged stone tile on walls and floors, Pro Mastic 400 is used in areas with intermittent water exposure like tub surrounds and shower walls.

Recommended for tile up to 8" (20 cm) on any side. Can be used with wall or countertop tile up to 15" (38 cm) on any side but dry time significantly increases. For tile with any side greater than 15" (38 cm) MERKRETE recommends using a polymer modified LHT mortar for setting large and heavy tile.

Uses

- For use with most types of glazed and unglazed ceramics and porcelain tile, and ceramic and porcelain mosaics for walls and floors
- Use to install tiles up to 8" x 8" (20 cm x 20 cm) on floors, and up to 15" x 15" (38 cm x 38 cm) on walls.
- For tub and bath surrounds where service requirements do not exceed ANSI A136.1 Type 1
- For the installation of tile on walls in intermittent wet conditions such as tub and shower surrounds
- Do not use on shower floors.

Suitable Tile Types

- 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

- 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

1-gallon (3.78 l) pail; 48 per pallet
3.5-gallon (13.25 l) pail; 128 per pallet

Colors

White

Shelf life

Maximum 15 months from date of manufacture in unopened package.



Limitations

- Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushion or sponge-back vinyl flooring, metal, fiberglass, plastic or OSB panels.
- Not recommended for interior and exterior pools and water features.
- When setting moisture-sensitive natural stone, cement or agglomerate tile use Merkrete Pro Epoxy.
- Do not use to install resin-backed stone; use Merkrete Pro Epoxy.
- Recommended floor tile size: 8" (20 cm) or less on all sides.
- If dry time is a concern due to tile size or other limitations noted, use a traditional polymer-modified thin set mortar instead.
- When installing ceramic plank tile greater than 15" (38.1 cm) long, use a cement mortar designed for large and heavy tile.
- Not recommended for installing tile larger than 6" x 6" (15.2 cm x 15.2 cm) over waterproofing membranes and vinyl flooring.
- Recommended for interior use only.
- Do not use for steam rooms, shower floors or underwater. For those installations, use MERKRETE Polymer-Modified Mortar Systems.
- Not for use over radiant heat systems.
- Installation dry time varies depending on tile size and density, substrate porosity and ambient conditions.
- Do not use to install fixtures, un-gauged natural stone, gauged stone thicker than 3/8" (9.5 mm), transparent glass tile, translucent stone, Saltillo pavers or lug back tile on floors.

4. Technical Data

Applicable Standards

American National Standards Institute (ANSI) ANSI A108.4 and A136.1, Type 1 American National Standards for the Installation of Ceramic Tile Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171.

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

Property	Test Method	Requirement	Typical Results
Open Time	—	—	45 Minutes
Adjustment Time	—	—	40 Minutes
Freeze Thaw Stability	—	—	Stable
Shear Bond Strength			
7 Day Dry	A136.1 Section 6.2.3.1	> 50 psi	Pass
28 Day Dry	A136.1 Section 6.2.3.3	> 50 psi	Pass
Type I After Water immersion	A136.1 Section 6.2.3.2	> 50 psi	Pass
Heat Resistance	A136.1 Section 6.2.3.5	> 10 lbs. per tile	Pass
Impact Resistance	A136.1 Section 6.2.3.6	Tile Remain Bonded	Pass
Staining	A136.1 Section 6.3	< 70% Penetration	Pass
Resistance to Mold Growth	A136.1 Section 6.4	No Growth	Pass

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 1 point toward IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants
- Up to 1 point toward IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems

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 repair should be prepared using Merkrete 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 about 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 previous to installation of tile. Do not leave puddles or standing water.

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

Mixing

- Ready to use; no mixing is required.

Note: Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for more information.

Application

Spread the adhesive onto the substrate using a 3/16" x 1/4" V-notched trowel for installation of wall tiles up to 6" x 6". For the installation of floor tiles or wall tiles larger than 6" x 6", use a 3/8" x 3/8" notched trowel. Tiles with lugs, grooves or an uneven back must initially be butter coated with the adhesive, in addition to the adhesive being troweled onto the substrate. For mosaic tiles, use a 3/16" x 1/4" V-notched trowel. A minimum final bed thickness of 1/16" is recommended for wall tiles, while a minimum final bed thickness of 1/8" is recommended for floor tiles, but the final bed thickness in either case must not exceed 3/16". Do not spread more Pro Mastic 400 than can be covered in 15 minutes or before the adhesive



skins over. Press tiles firmly into position before the adhesive skins, ensuring that all the tiles are well bedded, and that no voids occur under the tiles. Occasionally, in order to ensure that full coverage is being maintained, a tile should be removed, the adhesive coverage noted and the tile re-laid accordingly. Once the tiles are applied, they must not be disturbed for 24 hours at 68° F.

Cleaning

Water is all that is needed to remove any uncured adhesive from tiles, tools and equipment. After material has dried, use warm, soapy water or mineral spirits to clean.

6. Availability

Merkrete Pro Mastic 400 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

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

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.

Approximate Coverage:

Typical Trowel	1 U.S. gal. (3.79 L) Coverage	3.5 U.S. gals. (13.2 L) Coverage
$\frac{1}{8}$ " x $\frac{1}{8}$ " x $\frac{1}{8}$ " (3 x 3 x 3 mm) for mosaic tile measuring $\frac{3}{4}$ " (19 mm) long x $\frac{1}{8}$ " (3 mm) thick 	55 to 65 sq. ft. (4.65 to 6.50 m ²)	193 to 228 sq. ft. (17.9 to 21.2 m ²)
$\frac{3}{16}$ " x $\frac{3}{32}$ " x $\frac{1}{8}$ " (4.5 x 4 mm) for flat-backed tiles up to 4" x 4" (10 x 10 cm) 	40 to 50 sq. ft. (3.72 to 4.65 m ²)	140 to 175 sq. ft. (13.0 to 16.3 m ²)
$\frac{1}{4}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ " (6 x 6 x 6 mm) for tiles between 4" x 4" (10 x 10 cm) and 12" x 12" (30 x 30 cm) 	25 to 35 sq. ft. (2.32 to 3.25 m ²)	87.5 to 123 sq. ft. (8.13 to 11.4 m ²)



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