



703 THIN SET

PROFESSIONAL GRADE MULTIPURPOSE
POLYMER MODIFIED PORTLAND
CEMENT THIN SET MORTAR

- Freeze-thaw stable
- Interior and exterior
- Bonds to most surfaces
- Available in both gray and white colors
- Exceeds ANSI A118.1 for portland cement mortar
- Exceeds ANSI 118.4 and A118.11 (EGP) for polymer modified portland cement mortar when mixed with Merkrete 150 Latex or Tuff Flex 442 additives.



1. Product Name

703 Thin Set

2. Manufacturer

Parex USA, Inc.

2150 Eastridge Ave, Riverside, CA 92507
866-516-0061 • www.merkrete.com

3. Product Description

Basic Use

Merkrete 703 Thin Set* is a professional-grade, polymer-modified Portland cement thinset mortar for installing porcelain, ceramic tile and natural stone. It is recommended as thinset for absorptive, semi-vitreous and vitreous tile over properly prepared masonry, concrete and cement backer board. In dry areas, it is suitable for gypsum board and plywood substrates.

*Available only on the East Coast.

Uses

703 Thin Set is used as a thinset mortar for ceramic tile and natural stone for both walls and floors in interior and exterior applications. It is recommended for use in the thinset installation method for absorptive, semi-vitreous and vitreous tile over properly prepared masonry, concrete, cement backer board, and existing ceramic tile. In interior dry areas, it is suitable for gypsum board. It is used as a thinset from 3/32" to 3/16" (2.4 to 4.8 mm) after the tiles have been properly beat in. 703 Thin Set is suitable for both residential and commercial construction.

Suitable Substrates

- Brick masonry
- Cement backer board¹
- Cement mortar beds
- Cement plaster
- Cement terrazzo
- Ceramic tile and stone²
- Concrete
- Concrete masonry
- Exterior grade plywood²
- Gypsum wallboard²
- Merkrete waterproofing/crack isolation membranes²

¹Cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use.

²Interior use only



4. Technical Data

Applicable Standards: Merkrete 703 Thin Set meets or exceeds industry requirements ANSI A118.1 for portland cement mortar. Follow ANSI A108.5 for installation.

PROPERTIES		
ANSI 118.4	ANSI Requirements	700 Premium Set Results
Open Time at 70° F	> 50 minutes	> 65 minutes
Glazed Wall Tile, 12 week shear	> 300 psi	>315 psi
Impervious Mosaic, 28 day shear	> 200 psi	>225 psi
Quarry Tile, 28-day shear	> 150 psi	>245 psi
LEED v3 NC VOC	EQ Credit 4.1	703 Thin Set Results
VOC	< 65 g/l	<0 g/l

Packaging

50-lb (22.7-kg) bag ;48 bags per pallet | Colors: Gray and White

Shelf Life

Reference Parex USA Expiration Date of Products Technical Bulletin.

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 underlayment. Movement (expansion) joints should be provided to comply with TCA method EJ 171.

Substrates

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 installation of tile. Do not leave puddles or standing water.

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

Mixing

In a clean container, add approximately 5.5 quarts (5.2 liters) of clean potable water. Then add the contents of the 50 lb. (22.7 kg.) 703 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 15 minutes. Remix before using without adding more 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.

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 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.



Limitations

Do not use 703 Thin Set below 40° F (4° C) or above 95° F (35° C). Use caution to not allow mortar to freeze for the first 72 hours. Do not soak tiles prior to installation. 703 Thin Set must not be used to apply over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, gypsum mortar beds or other unstable substrates. Improperly cured or wet plywood, particle board or strip wood are not suitable substrates. For 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 703 Thin Set white mortar. Some dimensional stone tile like resin-backed, black, green and red marbles may warp when installed with water-based setting materials. These water-sensitive stone tiles should be installed with Merkrete Pro Epoxy. For use of 703 Thin Set over other substrates or for situations not mentioned in these instructions, contact Merkrete Technical Services.

Cleaning

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

Coverage

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



6. Availability

Merkrete 703 Thin Set is available at leading tile houses and construction distributors. 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 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 Systems maintains technical field representatives available throughout the country. Call Technical Services at 800-226-2424 for the nearest representative.

10. Literature

For the most up to date technical information (details, submittals, SDS, or data sheets), refer to our websites at www.parexusa.com or www.merkrete.com.



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PAREXUSA

Parex USA, Inc., a California Corporation