

1. PRODUCT NAME

TEC® Flex.4 Latex Modified Thin Set Mortar

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
1105 South Frontenac Street
Aurora, IL 60504-6451 U.S.A.
800.552.6225 Office
800.952.2368 Fax
tecspecialty.com



VOC 0. Product contains recycled material.
Gray: 6% pre-consumer
White: 0%

3. DESCRIPTION

Flex.4 is a one-part latex modified thin set mortar for installing ceramic, porcelain and natural stone tiles. For use over a variety of substrates, Flex.4 provides a reliable bond for basic residential or commercial installations.

Key Features and Benefits

- Good for bonding ceramic, porcelain and stone tile
- Interior/exterior use
- Meets ANSI A118.4 specifications
- No additive required – just add water and mix

Packaging

50 lb. (22.68 kg) moisture-resistant bags
Gray Product #70-4956-3111
White Product #70-4970-3111

Coverage

Coverage will vary with condition of substrate. Required trowel size will vary with the tile size, type and substrate uniformity. Select the trowel size that will ensure 100% coverage. Figures below are presented only as guidelines.

Trowel Size	Approximate Coverage per 50 lbs. (22.68 KG)
¼" x ¼" x ¼" (6 x 6 x 6 mm) square-notch trowel	80-90 sq. ft. (7.4-8.4 m ²)
¼" x ⅜" x ¼" (6 x 9 x 6 mm) square-notch trowel	55-65 sq. ft. (5.1-6 m ²)

Suitable Substrates

When properly prepared, acceptable substrates include:

- Cured concrete, cured mortar beds, brick and masonry (interior and exterior installations)
- Gypsum wallboard (dry interior wall areas only)
- Water resistant gypsum wallboard (e.g.: greenboard, interior walls only, dry to intermittent water exposure only)
- Cementitious backer units (CBU) or glass mat backer board
- Existing unglazed ceramic tile and natural stone, provided existing flooring is well-bonded to an approved substrate.

All substrates must be dry, structurally sound with maximum deflection per industry standards of $\frac{1}{360}$ for ceramic tile installations and $\frac{1}{720}$ for natural stone installations under all live and dead loads; and free from oil, grease, dust, paint, sealers or concrete curing compounds. All contaminants should be removed prior to installation of tile. Surface protrusions and tile glazes shall be removed by sanding, scraping or scarifying. After preparation, remove all dust by vacuuming. *Note:* Any substrate containing asbestos shall not be sanded, scored or scarified because of the potential health hazard of breathing dust. Any substrate containing asbestos must be handled in accordance with existing EPA regulations. Contact your local EPA office.

Notes: Expansion joints shall be provided in the tilework over all construction or expansion joints in the backing and where backing materials change. Follow ANSI A108.01, Section 3.7, Requirements for Expansion Joints.

Maximum variations in all substrates shall not exceed $\frac{1}{4}$ " in 10 ft. (6 mm in 3 m) or $\frac{1}{16}$ " in 1 ft. (1.5 mm in 0.3 m) from the required plane. For non-level, interior surfaces use TEC® EZ Level® Self Leveling Underlayment.

Storage

Store in a cool dry area away from direct sunlight. Do not store open containers.

Shelf Life

Maximum of 1 year from date of manufacture in unopened package.

Limitations

Not for installing green marble, other moisture-sensitive stone tile or resin-backed marble; use TEC AccuColor EFX® Epoxy Grout and Mortar. For non-green marble tile applications, use white thin set mortars. Not for use over rubber, strip wood floors, oriented strand board, particle board or plywood. For plywood, use Full Flex® mortar. Temperature of area to be tiled must remain above 50°F (10°C) for 72 hours. Certain natural stone tiles may be affected by mortar shadowing or staining. Test a small area prior to use to determine suitability.

Cautions

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered TEC brand product(s) under normal environmental and working conditions. Because each project is different, H.B. Fuller Construction Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

Applicable Standard

Meets ANSI A118.4 specifications.

Flex.4 Latex Modified Thin Set Mortar, TA-452/453	
Description	Typical Results
28 Day Shear Strength Glazed Wall Tile Impervious Ceramic Tile (Porcelain) Quarry Tile	> 300 psi (2.1 MPa) > 200 psi (1.4 MPa) > 150 psi (1.0 MPa)
Sag on Vertical Surfaces	≤ 1/16" (1.6 mm)
Open Time at Room Temperature	50-60 minutes
Adjustability at Room Temperature	30-45 minutes
Final Set	13-15 hours
Physical Properties	
Description	
Physical State	Dry powder
Color	Available in white and gray
Pot Life	2 to 3 hours
Initial Cure [at 72°F (22°C)]	16 to 24 hours
Final Cure	21 days
Foot Traffic Rating (ASTM C627)	Residential to Extra Heavy Commercial (depending on substrate)
Storage	Store in cool, dry location. Do not store in direct sunlight.
Shelf Life	Maximum 18 months from date of manufacture in properly stored, unopened package

5. INSTALLATION INSTRUCTIONS

Mixing

For best results, maintain all tiling materials, substrates, room and adhesives at 50°-70°F (10-21°C) for 24 hours before and 48 hours after installation. Thoroughly mix 50 lbs. (22.68 kg) Flex.4 with 1 to 1½ gallons (3.8 to 5.7 L) clean, cool water.

Add powder to liquid for ease of mixing. Mix material to a thick creamy consistency, then allow the mortar to stand for 10 minutes. Remix and apply. Avoid breathing dust and contact with eyes and skin. Avoid using high speed mixing, not to exceed 300 rpm, to prevent entraining air.

Application

Apply mortar using flat side of trowel to promote better substrate contact, then comb in one direction with the notched side of the trowel. Spread only an area that can be tiled while surface is still tacky (typically 20-30 minutes). Press tiles into setting bed, then push in a direction perpendicular to the notched trowel ridges to achieve optimum coverage. Apply mortar in a heavy enough layer so that complete contact (no voids) between mortar and tile is accomplished when tile is positioned. It may be necessary to "back-butter" large tiles to achieve complete coverage and firm support. Periodically remove and check a tile to assure proper coverage. Keep a minimum of 2/3 of the joint depth between tiles for grouting.

Open time and tile hand adjustability may vary with job site conditions. Stir occasionally during use to maintain the smooth, creamy consistency of the product. **Do not add additional water.**

Clean-up

Clean tools, hands, and excess materials from face of tile, while mortar is still fresh, with warm soapy water.

Grouting/Curing

Grouting may be accomplished when tiles are held firmly in place, typically 16 to 24 hours after installation is completed. No traffic is permitted over the tiles prior to grouting. Cold temperatures or high humidity may extend curing time. Unglazed tiles may require sealing prior to grouting so discolorations will not occur. The use of TEC brand grouts is highly recommended.

6. AVAILABILITY AND COST

Availability

TEC Premium Tile and Stone Installation Products are available nationwide. To locate a distributor in your area, please contact:

Phone: 800-832-9002

Website: tecspecialty.com

Cost

Contact your local TEC Distributor.

7. WARRANTY

H.B. Fuller Construction Products Inc. offers a limited warranty on this product when installed in accordance with TEC brand printed specifications. Ask your sales associate or see tecspecialty.com for a copy of the limited warranty.

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical assistance

Information is available by calling the Technical Support Hotline.

Toll Free: 1-800-832-9023

Fax: 630-952-1235

Technical and safety literature

To acquire technical and safety literature, please visit our website at tecspecialty.com.

10. FILING SYSTEM

Division 9



tecspecialty.com



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