



IsoLight™ 1/8" (3 mm) Crack Isolation Mortar

1. PRODUCT NAME

TEC® IsoLight™ 1/8" (3 mm) Crack Isolation Mortar
(358/359)

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
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Aurora, IL 60504-6451 U.S.A.
800.552.6225 Office
800.832.9023 Technical Support
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3. DESCRIPTION

IsoLight™ is a lightweight, Large Heavy Tile (LHT) mortar that protects tile from up to 1/8" (3 mm) substrate cracking from in-plane horizontal substrate movement. Its unique "lightweight" formula provides 50 lb. (22.68 kg) coverage in a 30 lb. (13.6 kg) bag. Formulated with Easy Trowel Technology™, IsoLight™ Mortar provides superior handling and extended open time as compared to regular mortars, improving speed and productivity. IsoLight™ Mortar exceeds ANSI A118.4TE, A118.11 and A118.15TE specifications and is rated for residential to extra heavy commercial applications.

Key Features and Benefits

- 50 lb. (22.68 kg) coverage in a 30 lb. (13.6 kg) bag
- One-step 1/8" (3 mm) crack isolation
- Easy Trowel Technology™ provides superior handling
- Exceeds ANSI A118.4TE, A118.11 and A118.15TE specifications
- Glass tile/non sag for walls
- Interior/Exterior use
- Extended open time
- Extra Heavy Duty Commercial rating
- Recycled content contributes to LEED® certification*
- Zero VOC

* Gray formula contains 5% pre-consumer recycled material.
White formula contains 4% pre-consumer recycled material.

Packaging

30 lb. (13.6 kg) moisture-resistant bags

Gray Product #7049363611

White Product #7049693611

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 30 lbs. (13.6 kg)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) square-notch trowel	80-90 sq. ft. (7.4-8.4 m ²)
1/4" x 3/8" x 1/4" (6 x 9 x 6 mm) square-notch trowel	55-65 sq. ft. (5.1-6 m ²)
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm) square-notch trowel	40-50 sq. ft. (3.7-4.6 m ²)
3/4" (19 mm) rounded-notch trowel	30-40 sq. ft. (2.8-3.7 m ²)

Suitable Substrates

When properly prepared, suitable substrates include:

- Cured concrete, cured mortar beds, brick and masonry (interior and exterior installations)
- APA Grade Trademarked Exposure 1 Plywood [Underlayment grade or better, two layers, 1 1/8" (28 mm) total minimum thickness for joists 16" (40 cm) o.c., interior floors only].
- Gypsum wallboard (dry interior wall areas only)
- Water resistant gypsum wallboard (i.e.: greenboard, interior walls only, dry to intermittent water exposure only)
- Cementitious backer units (CBU) or glass mat backerboard
- Existing ceramic tile and natural stone, provided existing flooring is well-bonded to an approved substrate.
- Vinyl composition tile, asphalt tile, linoleum or non-cushioned vinyl sheetgoods provided such surfaces are single layered, well-bonded to an approved substrate and properly prepared.
- Plastic laminate (interior countertops only) provided the counter is structurally sound and level.
- Adhesive residue (except tacky or pressure-sensitive adhesive)

Substrate Preparation

All substrates must be dry, structurally sound with maximum deflection per industry standards of 1/360 for ceramic tile installations and 1/220 for natural stone installations; and free from oil, grease, dust, paint, sealers or concrete curing compounds. All contaminants must be removed prior to installation of tile. Surface protrusions and tile glazes shall be removed by sanding, scraping or scarifying. For installation over asphalt-based cutback adhesive, remove adhesive by scraping until all that remains is a thin, transparent layer of adhesive residue. After preparation, remove all dust by vacuuming.

Notes: Vinyl asbestos tile or any substrate containing asbestos must 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. Expansion joints must be provided in the tile work over all construction, control and 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 **must not exceed** 1/4" in 10 ft. (6 mm in 3 m) and 1/16" in 1 ft. (1.6 mm in 0.3 m) from the required plane for tile less than 15" (381 mm) on all sides. Maximum variations in all substrates **must not exceed** 1/8" in 10 ft. (3 mm in 3 m) and 1/16" in 2 ft. (1.6 mm in 0.6 m) from the required plane for tile 15" (381 mm) or greater on any one side. For non-level, interior surfaces use TEC® Level Set® 300 Self Leveling Underlayment.

Storage

Store in cool, dry location. Do not store open containers.

Shelf Life

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

Limitations

- Not for installing green marble and 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 IsoLight™ Mortar.
- Not for use over rubber, strip wood floors, oriented strand board, particle board, lauan plywood.
- For CDX plywood, use TEC® Super Flex™ mortar.
- Do not apply over single layer wood floors.
- 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.

Applicable Standard

Exceeds ANSI A118.4TE, A118.11 and A118.15TE specifications
ISO 13007: Classification C2TES1P2

TEC® IsoLight™ 1/8" (3 mm) Crack Isolation Mortar (358/359)					
ANSI Standard	Test	Section	Test Duration/Conditions	ANSI Specification	Typical Results
A118.15TE	Open Time	5.3.6	30 minute (E)	75 psi (0.5 MPa) at 30 minutes	305
	Sag	6.1.5	Optional Test	0.02 in (0.5 mm)	
	Ceramic Tile Shear Strength	7.1.2	7 day	>300 psi (2.07 MPa)	540
		7.1.4	Heat Aging	>450 psi (3.10 MPa)	745
	Porcelain Mosaic Tile Shear Strength	7.2.5	28 day	>400 psi (2.76 MPa)	645
Quarry Tile Shear Strength	7.3.2	28 day	150 psi (1.03 MPa)	580	
A118.11	Shear Strength to Quarry Tile	4.1.2	28 day plywood	>150 psi (10.5 kg/cm ²)	285

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

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**Physical Properties**

Description	
Physical State	Dry powder
Color	Available in white and gray
Pot Life	1½ 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 open containers.
Shelf Life	Maximum 1 year 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 installation. Maintain recommended room temperature for 48 hours after installation. In a clean mixing container, pour 5½-6 quarts (5.2-5.7 L) clean, cool water. Add ½ bag of IsoLight™ Mortar and mix until all powder is consumed. Add ¼ bag and mix until powder is consumed. Add final ¼ bag and mix to a thick creamy consistency. Avoid breathing dust and contact with eyes and skin. Allow the mortar to stand for 10 minutes. Remix and apply. 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 30-40 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

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

Phone: 800-832-9002

Website: tecspecialty.com

7. LIMITED WARRANTY

The product(s) covered by this Product Data Sheet are sold subject to a Limited Warranty and related terms. H.B. Fuller Construction Products disclaims the implied warranties of merchantability and fitness for a particular purpose and all incidental and consequential damages arising out of the sale, purchase or use of this product. For Limited Warranty details visit tecspecialty.com. To obtain a hard copy of the Limited Warranty call H.B. Fuller Construction Products at 800-832-9023 or mail a written request to the address in Section 2 of this Product Data Sheet.

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES**Technical and safety literature**

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

10. FILING SYSTEM

Division 9



tecspecialty.com