



Uncoupling Mortar

1. PRODUCT NAME

TEC® Skill Set™ Uncoupling Mortar

2. MANUFACTURER

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3. DESCRIPTION

TEC® Skill Set™ Uncoupling Mortar is a dry set mortar made for use with Schluter®-DITRA uncoupling membrane and Schluter®-KERDI waterproofing membrane.

Key Benefits and Features

- Mixed with water, meets ANSI A118.1 specifications
- Mixed with TEC® Skill Set™ Latex Mortar Additive, meets ANSI A118.4 and ANSI A118.11 specifications
- Ideal for use as a medium bed mortar for large format tile
- Contributes to LEED® certification

Packaging

50 lbs. plastic bag; gray

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.
To bond Schluter®-DITRA Uncoupling Membrane or Schluter®-KERDI Waterproofing Membrane to substrate	
1/4" x 3/16" V-notch Trowel	150-200 sq. ft.
To bond tile to Schluter®-DITRA Uncoupling Membrane	
1/4" x 3/8" square-notched trowel	40-50 sq. ft.
To bond tile larger than 12" x 12" to Schluter®-DITRA Uncoupling Membrane	
1/2" x 1/2" square-notched trowel	30-40 sq. ft.
3/4" rounded-notch trowel	25-35 sq. ft.
To bond tile to Schluter®-KERDI Waterproofing Membrane	
1/4" x 3/8" square-notched trowel	665-75 sq. ft.
To bond tile larger than 12" x 12" to Schluter®-KERDI Waterproofing Membrane	
1/2" x 1/2" square-notched trowel	40-50 sq. ft.
3/4" rounded-notch trowel	35-40 sq. ft.

Note: Maximum allowable trowel size is 3/4" x 3/4".

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete and cured mortar beds
- APA Grade Trademarked Exposure 1 Plywood. **Requires use with TEC® Skill Set™ Latex Mortar Additive.**
- Drywall (for Schluter®-KERDI only)
- Cementitious backer units (CBU)

Schluter®-Systems may list additional substrates, such as gypsum underlayment and oriented strand board (OSB), as suitable for its uncoupling membranes. However, H.B. Fuller Construction Products Inc. ("HBF-CP) does not recommend them. As such the HBF-CP warranty for TEC® Skill Set™ Uncoupling Mortar does not apply to these substrates.

Surface Preparation

All substrates must be dry, structurally sound, in conformance with applicable building codes when subjected to 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.

Notes: Follow ANSI A108.01 Section 3.7 Requirements for Expansion Joints. The tile installations shall be in accordance with the most recently published Schluter®-Systems literature, including the Schluter®-DITRA Installation Handbook and Schluter®-KERDI Installation Handbook, and applicable industry standards.

Storage

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

Shelf Life

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

Limitations

For non-green marble tile applications, use with TEC® Skill Set™ Uncoupling Mortar. Not for use over rubber, strip woods floors, oriented strand board, masonite, particle board, lauan or CDX plywood or similar unstable substrates. Do not apply directly over approved plywood subfloors, waterproofing or crack isolation membranes unless the mortar has been mixed with TEC® Skill Set™ Mortar Additive. Do not use where hydrostatic pressure can occur. Follow TCNA specifications surface preparation and tile installation. Mortar should not be applied when the temperature of the area and substrate to be tiled is below 50°F (10°C), as this delays the curing process. Certain natural stone tiles may be affected by mortar shadowing or staining. Test a small area prior to use to determine suitability.



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Cautions

WARNING: EYE, SKIN, AND LUNG IRRITANT. Do not get in eyes, on skin or clothing; do not breathe fumes. Keep out of reach children. FIRST AID TREATMENT: Contains crystalline silica, Portland cement, aluminum oxide, magnesium oxide, iron oxide, calcium oxide, and calcium sulfate. If swallowed, call a Poison Control Centre or doctor immediately. Do not induce vomiting. If in eyes, rinse with water for 20 minutes. If on skin, rinse well with water. For additional information, see Material Data Safety Sheet (MSDS) for this product. WARNING! This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. FOR EMERGENCY MEDICAL INFORMATION, CALL 1-888-853-1758.

This Product Data Sheet has 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® Skill Set™ brand product(s) under normal environmental and working conditions. Because each project is different, H.B. Fuller Constructions Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

Applicable Standard

TEC® Skill Set™ Uncoupling Mortar		
Description	ANSI Requirement	Typical Results
<i>Tested in accordance with ANSI A118.1 Specifications for Dry Set Mortars</i>		
28 Day Shear Strength Glazed Wall Tile	> 250 psi (1.7 MPa)	250-325 psi (1.7-2.2 MPa)
Impervious Ceramic Tile (Porcelain)	> 150 psi (1.0 MPa)	150-200 psi (1.0-1.4 MPa)
Quarry Tile	> 100 psi (0.7 MPa)	300-400 psi (2.1-2.8 MPa)
Sag on Vertical Surfaces	≤ 1/16"	0-1/16"
Open Time at Room Temperature	≥ 50 minutes	50-60 minutes
Adjustability at Room Temperature	≥ 30 minutes	30-40 minutes
Final Set	9-15 hours	9-15 hours
<i>Tested in accordance with ANSI A118.11 Specifications for Latex-Modified Dry Set Mortars over Exterior Grade Plywood</i>		
28 Day Shear Strength Quarry Tile to Plywood	150 psi (1.0 MPa)	> 150 psi (1.0 MPa)

Description	ANSI Requirement	Typical Results when mixed with TEC® Skill Set™ Latex Mortar Additive
<i>Tested in accordance with ANSI A118.4 Specifications for Latex Modified Dry Set Mortars</i>		
28 Day Shear Strength Glazed Wall Tile	> 300 psi (2.1 MPa)	500-600 psi* (3.4-4.1 MPa)
Impervious Ceramic Tile (Porcelain)	> 200 psi (1.4 MPa)	225-300 psi (1.5-2.1 MPa)
Quarry Tile	> 150 psi (1.0 MPa)	350-450 psi (2.4-3.1 MPa) *ANSI-specified glazed wall tile failed at 600 psi (4.1 MPa)
Sag on Vertical Surfaces	≤ 1/16"	1/16"
Open Time at Room Temperature	≥ 50 minutes	60-80 minutes
Adjustability at Room Temperature	≥ 30 minutes	30-40 minutes
Final Set	9-15 hours	9-15 hours
<i>Tested in accordance with ANSI A118.11 Specifications for Latex-Modified Dry Set Mortars over Exterior Grade Plywood</i>		
28 Day Shear Strength Quarry Tile	150 psi (1.0 MPa)	> 150 psi (1.0 MPa)

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

Physical Properties

Description	
Physical State	Dry Powder
Color	Available in white
Pot Life	2-3 hours
Initial Cure [at 72°F (22°C)]	16-24 hours
Final Cure	21 days
Foot Traffic Rating (ASTM C627)	Residential to Extra Heavy Commercial (depending on substrate)



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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. TEC® Skill Set™ Uncoupling Mortar with 5-6 quarts clean, cool water. Where needed, mix TEC® Skill Set™ Uncoupling Mortar with TEC® Skill Set™ Latex Mortar Additive in place of 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.

Uncoupling Membrane Installation Instructions

IMPORTANT: Installation shall be in accordance with the most recently published Schluter®-Systems literature, including the Schluter®-DITRA Installation Handbook and the Schluter®-KERDI Installation Handbook, and applicable industry standards. Read information completely prior to installation. Contact Schluter®-Systems with any questions regarding construction of the tile assembly. Follow applicable TCNA and ANSI industry standard guidelines.

Schluter®-DITRA Installation: Apply a skim coat of mortar using flat side of trowel to promote better substrate contact. Apply additional mortar with a 1/4" x 3/16" or 5/16" x 5/16" V-notched trowel held at a 45° angle to the surface, combing in one direction. Spread only an area that the Schluter®-DITRA Uncoupling Membrane can be installed while the surface is still tacky (typically 20-30 minutes). If any evidence of skinning or setting occurs, remove and replace with fresh mortar. Apply Schluter®-DITRA Uncoupling Membrane to the mortar fleece side down. Work Schluter®-DITRA Uncoupling Membrane into the mortar using the flat side of the trowel, float or roller to embed the mortar into the fleece throughout the entire surface. Periodically lift up a corner of the membrane to assure proper coverage of the fleece.

Schluter®-KERDI Installation: Apply a skim coat of mortar using flat side of trowel to promote better substrate contact. Apply additional mortar with a 1/4" x 3/16" V-notched trowel or 1/8" x 1/8" square-notched trowel held at a 45° angle to the surface, combing in one direction. Spread only an area that the Schluter®-KERDI Waterproofing Membrane can be installed while the surface is still tacky (typically 20-30 minutes). If any evidence of skinning or setting occurs, remove and replace with fresh mortar. Apply Schluter®-KERDI Waterproofing Membrane to the mortar. Work Schluter®-KERDI Waterproofing Membrane into the mortar **using the flat side of the trowel to ensure proper adhesion and remove air pockets.** Periodically lift up a corner of the membrane to assure proper coverage of the fleece.

Tile Installation

Over Schluter®-DITRA, apply a coat of TEC® Skill Set™ Uncoupling Mortar with the flat edge of the trowel to completely fill the cavities on the surface of the membrane and achieve a mechanical bond to the membrane. Over Schluter®-KERDI, apply a coat of TEC® Skill Set™ Uncoupling Mortar with flat edge of trowel to fully engage the fleece and achieve a mechanical bond to the membrane. Comb additional mortar over the surface using a trowel that is appropriate for the size of the tile. Apply additional mortar with an appropriate square-notched or U-notched trowel held at a 45° angle to the surface, combing in one direction. Press tiles into setting bed, then push in a direction perpendicular to the notched trowel ridges to achieve optimum coverage. Apply mortar to an area no greater than to which tile can be installed in 15-20 minutes. If any evidence of skinning or setting occurs, remove and replace with fresh mortar. 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. No traffic is permitted over the tiles prior to grouting. Material in bucket will remain workable approximately 2 to 3 hours.

Clean Up

Clean tools, hands, and excess materials from face of tile, while mortar is still fresh, with warm soapy water. Do not allow material to dry on surface of tile.

Curing/Protection

Grouting may be accomplished when tiles are held firmly in place, typically 12 to 16 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® Skill Set™ brand grouts or TEC® Power Grout™ is highly recommended.

6. WARRANTY

For details about our limited warranties, see your sales associate or tecskillset.com.

7. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the Technical Service Helpline. Toll Free: 800-832-9023

Technical and Safety Literature

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