



Universal Adhesive

1. PRODUCT NAME

TEC® Skill Set™ Universal Adhesive

2. MANUFACTURER

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3. DESCRIPTION

TEC® Skill Set™ Universal Adhesive is a premium ready-to-use adhesive, excellent for setting ceramic, porcelain, natural stone, quarry and mosaic tile on interior floors and walls. Recommended for wall and floor applications with tile up to 20" x 20". The non-staining formula is ideal for light-colored stone and grout. The lightweight composition offers easy troweling, non-slip wall performance, and non-slump floor performance.

If mortar meeting ANSI A118.4 is required, TEC® Skill Set™ Universal Adhesive may be used for glass tile up to 8" x 8".

Key Benefits and Features

- For tile and stone up to 20" x 20" on walls and floors
- Lightweight – non-slip performance on walls, non-slump on floors
- Exceeds ANSI A136.1 Type I & II Specifications
- The adhesive is mold and mildew resistant
- Fast drying
- Creamy, easy to use formula

Packaging

1 gallon plastic pail
3.5 gallon plastic pail

Coverage

Coverage will vary with type of substrate. Figures below are presented only as guidelines.

Approximate Coverage			
Trowel	3/16" x 5/32" V-notch	1/4" x 1/4" x 1/4" Square-notch	1/4" x 3/8" x 1/4" Square-notch
Tile Size	Up to 6" x 6"	6" x 6" to 12" x 12"	12" x 12" to 20" x 20"
Coverage Per 1 Gal	30-35 sq. ft.	20-25 sq. ft.	15-20 sq. ft.
Per 3.5 Gal	105-123 sq. ft.	70-88 sq. ft.	53-70 sq. ft.

Suitable Substrates

Use only on structurally sound interior surfaces such as cured Portland cement plaster, gypsum wallboard (*walls only*), exterior grade plywood (*floors only, over two 5/8" layers, joists 16" on center*), Cementitious backer units, fiber cement underlayment, coated glass mat backer board, well cured

moisture tested concrete not subject to dampness or moisture vapor emissions. **Installations where concrete is damp or the concrete is subject to moisture vapor emissions can fail.**

Storage

Store in a cool, dry location – **Indoors only**. Protect from freezing. Adhesive is freeze thaw stable to -10°F. Avoid prolonged or repeated freeze thaw cycles. Should adhesive freeze, allow to thaw at room temperature and stir well before using.

Shelf Life

Maximum of 1 year from date of manufacture in unopened package. Bucket good for 6 months after opening. (Re-seal and store in cool, dry location, use within shelf life. Covering with plastic wrap directly on top of product prior to sealing container will help preserve freshness).

Limitations

- Not for use in conjunction with PVC heating mats or coils, or over polyethylene membranes.
- Not for use over anti-fracture & waterproofing membranes, sheets or mats.
- Not for use on shower floors or pans, in steam rooms, in steam showers, swimming pools, or any place that will receive standing water.
- Not for use for leveling or in excess of trowel recommendations.
- Not for use on any non-porous substrate.
- Not for exterior use.
- Not for use where temperature will exceed 120°F.
- Not for use over lauan, MDF, particleboard, or Masonite®. (See **Suitable Substrates**.)
Masonite is a registered trademark of Masonite Corporation.
- Not for use with green marble, or to install resin backed marble or resin backed aggregate marble. Not for setting any marble over plywood floors or plywood countertops.
- Not for setting ceramic accessories such as towel bars, soap dishes, and grab bars.
- Not to be used underneath most backer boards (Check manufacturer instructions).

Cautions

FIRST AID MEASURES: In all cases, seek medical attention if symptoms develop or persist. **EYES:** Flush with water for 20 minutes. **SKIN:** Wash with soap and water. **IF VAPORS INHALED:** Remove to fresh air. **IF SWALLOWED:** Do not induce vomiting. **WARNING!** This product contains chemicals known to the State of California to cause cancer, birth defects or reproductive harm. **KEEP OUT OF REACH OF CHILDREN.** For Medical Emergency Information, call 1-888-853-1758.



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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® Skill Set™ 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

Exceeds ANSI A136.1 Type I & II specifications.

TEC® Skill Set™ Universal Adhesive

Description	ANSI Requirement	Typical Results
Shear Strength 28 Day, Room Temperature Type I Water Immersion After Accelerated Heat Aging	> 50 psi (0.34 MPa) > 50 psi (0.34 MPa) > 75% dry shear strength retention	500 psi (3.42 MPa) 150 psi (1.03 MPa) Passes
Heat Resistance	Maintains at least 10 lb. static load in shear at 120°F (49°C) for 24 hours	Passes
Impact Test	All tiles remain bonded after impact	Passes
Stain Test	< 70% penetration	Passes
Stability in Storage	4 weeks minimum	Passes
Resistance to Mold Growth <small>Tested in accordance with American National Standards for Organic Adhesives for Installation of Ceramic Tile – ANSI A136.1, Type 1</small>	No mold growth	Passes

Physical Properties

Description	
Base	Acrylic Latex
Physical State	Paste
Color	Gray
Odor	Nil
Open Time [at 72°F (22°C)]	20-35 minutes
Wt./U.S. Gallon	9 lbs. ± 0.3 lbs.
VOC/Liter of Material	27 grams less water
Foot Traffic Rating (ASTM C627)	Residential to light commercial
Storage	Store in cool, dry location. Do not store open containers. Freeze/thaw stable.
Shelf Life	Max. of 1 year from date of manufacture in properly stored, unopened package. Good for 6 months if tightly re-sealed, stored in a cool, dry location and used within shelf life.

5. INSTALLATION INSTRUCTIONS

Surface Preparation

All surfaces must be clean, dry, free of dirt, dust, grease, oil, loose paint, wallpaper, and residues of old adhesive, or any foreign matter which might impair adhesion where TEC® Skill Set™ Universal Adhesive is spread. Painted enameled walls and floors must be thoroughly scored or sanded to insure a bond to the original base wall or floor. Do not sand any floors or adhesives that are known or suspected to contain asbestos. **Installations where concrete is damp or the concrete is subject to moisture vapor emissions can fail.**

Application

The adhesive, tile, and room should be maintained at a minimum temperature of 60°F for 24 hours prior to installation. The minimum 60°F temperature must be maintained during the entire installation, and for a minimum of 48 hours following. Use a 3/16" x 5/32" V-notched trowel for installation of tile up to 6" x 6". For tiles larger than 6" x 6", use a 1/4" x 1/4" x 1/4" square-notched trowel. For tiles 12" x 12" to 20" x 20", use a 1/4" x 3/8" x 1/4" square-notched trowel.

Only apply the amount of adhesive to surface that can be tiled over in 15 minutes. **DO NOT SET TILE IF SKIN HAS FORMED ON THE ADHESIVE.** This time will vary with the temperature, humidity, and the substrate. Apply the adhesive to the substrate first with the flat side of the trowel. Then comb with the notched side of the trowel in one direction. Firmly press tiles into the adhesive and move them perpendicularly across the ridges. Do not slide tiles against each other. Periodically remove and check a tile to assure complete coverage.



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Cure times will vary with size and porosity of tile and porosity of floor (porcelain tiles take considerably longer to cure), humidity and temperature (cooler temperatures will extend set times). Typical floor installations take longer to cure. No traffic is permitted on tiles prior to curing. Grouting may begin once adhesive is firmly set up. Up to 6" x 6" wall tiles require wait time of 6 hours or longer. Over 6" x 6" tile or any floor tile application requires a least 12-24 hours. Check to determine readiness by trying to twist the tile and see if it moves. If it does, additional cure time is required. If the tile won't twist but you hear a wet suction sound when the tile is stepped on, additional cure time is also required. The use of TEC® Skill Set™ brand grouts is highly recommended.

Full cure takes at least 48-72 hours depending on conditions.

For glass tile, refer to manufacturer's specifications. For marble and granite installations, test in an inconspicuous area as discoloration may occur. Most discoloration disappears after 30 days. For proper curing, do not abut the marble tiles together.

Clean-up

While adhesive is still fresh, clean tools, hands, and excess material from face of tile with warm soapy water. If adhesive has dried, use acetone or mineral spirits to remove.

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
Fax: 630-952-1235

Technical and Safety Literature

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