

1. PRODUCT NAME

Rapid Patch® Feather Edge Pro

2. MANUFACTURER

TCC Materials®
2025 Centre Pointe Blvd.,
Mendota Heights, MN 55120 USA
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3. PRODUCT DESCRIPTION

Rapid Patch Feather Edge Pro is a trowelable, rapid-setting, Portland cement-based, polymer-modified, patch and skim coating compound for use on multiple interior substrates. This specially formulated, non-sanded product results in an ultra-smooth finish and can be applied from feather edge to ½ in. (13 mm) and is ideal for use as an embossing leveler.

Features and Benefits

- Feather edge to ½ in. (13 mm) in thickness without cracking
- Can be used as embossing leveler
- Ultra-smooth, thin finish
- Can be applied to concrete with a relative humidity (RH) up to 90%
- Can accept tile and stone applications as well as moisture-sensitive floor coverings in as little as 30 minutes or when completely dry
- Polymer-modified
- Fast-setting with initial set in 15-20 minutes
- Self-drying
- Portland-cement based
- Superior workability for easy application
- Does not require priming on most surfaces
- Exceptional bond strength
- Compatible with sealed gypsum based flooring

When/Where to Use

Ideal for patching and embossing, interior applications

Can be used under:

- Ceramic tile
- Resilient flooring
- VCT
- Carpet
- Natural stone
- Wood flooring

Can be used over (when properly prepared):

- Concrete
- Cement backer board (CBU)
- APA rated exterior grade/exposure 1 plywood or OSB underlayment grade equivalent**
- Ceramic tile**
- Properly prepared cutback adhesive**
- Properly prepared residual carpet adhesive**
- Fully adhered resilient flooring**
- Cement terrazzo**

** Replace 100% of water with Akona Concrete Bonding Additive (sold separately).

4. TECHNICAL DATA

Typical Values • Feather Edge Pro	
Mix Ratio (Liquid to Powder)	2 –2½ qt. (1.9-2.3 L) per 10 lb. (4.5 kg) (1 part water to 2 parts powder)
Working Time @ 70°F (21°C)	Approximately 15-20 minutes
Set Time ASTM C191	
Initial Set	Approximately 20 minutes
Final Set	Approximately 30 minutes
Compressive Strength ASTM C 109 (Air Cured)	
1 day	>2,100 psi (14.5 MPa)
7 days	>3,000 psi (20.7 MPa)
28 days	>4,500 psi (31 MPa)

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

Available Size

- 10 lb. (4.5 kg) bag (BOM #129490)

Coverage

Feather Edge Pro Approximate Coverage per 10 lb. (4.5 kg) bag	
⅛ in. (3.2 mm) thickness	Approx. 15 sq. ft. (1.45 m ²)
⅙ in. (1.6 mm) thickness	Approx. 31 sq. ft. (2.85 m ²)
Skim coat thickness	Approx. 90 sq. ft. (8.35 m ²)

5. INSTALLATION

Preparation

Read all directions before starting work. Proper surface preparation is crucial to achieving a successful application.

- Acclimate water and powder to room temperatures of 50°F-80°F (10°C-27°C) for a minimum of 24 hours prior to installation. Proper surface repair preparation is crucial to achieving a successful application.
- Surface must be clean, dry, hard and free from dirt, loose particles, wax, sealers, curing compounds, grease, paint, efflorescence, and any foreign materials that will inhibit adhesion.
- Floors must be structurally sound, level, free from movement and dimensionally stable.
- Feather Edge Pro does not require the substrate to be primed prior to installation over most surfaces.

Preparation Over Cementitious Floors:

- For best results, any concrete surface to be skim coated shall be cured for a minimum of 28 days, and free of surface imperfections, such as efflorescence.
- Loose chunks or chips of concrete should be cleared and remove any resulting dust.
- New slabs should be steel troweled with a fine broom finish. Existing slabs may need to be roughened to provide a mechanical bond.

- Maximum bond over a concrete substrate can be achieved by mechanically profiling the surface either by grinding, shot blasting, sand blasting, or scarifying to achieve an ICRI CSP3 to CSP5 standard. Structurally sound concrete that is porous, and has not been troweled smooth and flat may not require mechanical profiling.
- After cleaning and profiling, test for MVER (moisture vapor emission rate, reference ASTM F1869) and concrete substrate's relative humidity (RH, reference ASTM F2170). The requirements of the floor covering and floor adhesive manufacturers must be followed with respect to, but not limited to, levels of moisture.

Preparation Over Wood Substrates:

- Wood floors should be APA rated exterior exposure 1 plywood or OSB underlayment grade equivalent, structurally sound, securely fastened, with no flexing.

Preparation Over Existing Adhesive or Cutback Residue:

- Scrape off all ridges and remove any loose adhesive. Existing adhesive residue shall be hardened and well bonded to the substrate. Residue shall be mechanically reduced to expose the substrate and only a transparent residue shall be present.
- Mechanically remove any loose material or old patching compounds.
- Remove all dust from adhesive residue and check remaining residue to make sure it is not water soluble or if will interfere with bond strength.
- For difficult substrates such as existing adhesive residue, we recommend mixing with 100% Akona Concrete Bonding Additive in lieu of water to increase bond and flexural strength (Refer to mixing instructions). The addition of a latex additive will extend the setting time.

Preparation Over Existing Other Surfaces:

- Marble, terrazzo and existing ceramic tile surfaces must be well bonded to subfloor, cleaned of any waxes and abraded to a rough surface prior to application of Feather Edge Pro.
- For difficult substrates such as marble, terrazzo, sealed gypsum, and existing tile surfaces, we recommend mixing with 100% Akona Concrete Bonding Additive in lieu of water to increase bond and flexural strength (Refer to mixing instructions). The addition of a latex additive will extend the setting time.
- When applying over gypsum that has not been properly sealed, prime gypsum surface twice with Akona Concrete Bonding Additive. The first coat uses Concrete Bonding Additive diluted 3:1 with clean water; the second coat uses Concrete Bonding Additive diluted 1:1 with clean water. Allow sealer to dry between coats and before application of Feather Edge Pro.

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Mixing

1. Use cool, potable water, clean tools and clean containers.
2. Dry-blend Feather Edge Pro powder prior to mixing.
3. Mix only the amount that can be applied in 15-20 minutes.
4. Always add the powder to the liquid and mix with a low speed drill (300 RPM or less) until a lump-free mix is obtained. Use a mixing paddle that does not entrap air into the mortar.
5. The amount of water can be modified for various applications and set times. For each 10 lb. (4.5 kg) pail of powder, mix approximately 2-2½ qt. (1.9-2.3 L) liquid. For smaller batches, use 1 part water to 2 parts powder.

6. When going over cutback, adhesive, ceramic tile, or as an embossing leveler, substitute all of the water with Akona Concrete Bonding Additive.
7. Mix thoroughly to a lump-free, trowelable consistency.
8. Retemper as pot life nears set time by remixing, without additional water.

A mechanical mixer such as a paddle and a ½ in. heavy-duty drill will result in a better consistency and save time. Smaller batch quantities should be mixed by hand.

Note: Elevated temperatures will shorten the working time. Lower temperatures will delay set times.

Application

Apply only to surfaces that are frost free and between 50°F-80°F (10°C-27°C) for 24 hours prior to application and 48 hours thereafter.

Regular Applications:

1. Apply Feather Edge Pro with a steel trowel onto properly prepared surface using enough pressure to fill all defects and prepare the subfloor to the desired finish.
2. Do not exceed thickness of ½ in. (13 mm) per lift.
3. Begin to finish immediately using a flat steel trowel.
4. Flooring can be applied in as little as 30 minutes or as soon as completely dried.
5. For a smoother finish, Feather Edge Pro can be sanded once cured (usually within 1 hour under normal conditions).
6. This product should not be over-troweled or over-worked. Clean tools often.
7. For applications to areas greater than 4 sq. ft. (1 m²) where the uniform thickness is >½ in. (>13 mm), use a self-leveling underlayment, such as Akona Self-Leveling Floor Underlayment Cement.
8. If a higher build-up is needed, allow a minimum 1 hour curing time between multiple lift applications.

When Used With Flooring Installation:

- Feather Edge Pro will accept standard floor coverings such as VCT, vinyl sheet goods, tile, and carpeting in approximately 15-30 minutes after placement.
- When using moisture sensitive adhesives such as urethanes and epoxies, employed with wood floors etc., Feather Edge Pro may necessitate 16 hours of curing.
- Feather Edge Pro is a cement-based product therefore all adhesives compatible with concrete should be acceptable. Consult adhesive manufacturer.
- Always install a test area, insuring suitability of Feather Edge Pro for intended use.

Skim Coat Application:

- Apply mixture using a smooth-edge trowel to level the surface area by forcing the mix into substrate defects, voids and gaps.
- Trowel at a 45 degree angle to the substrate surface to fill voids while removing excess material from the surface.

Embossing Application:

- All material to be embossed must be clean and free of any waxes or other finishes.
- The flooring must be well bonded and not show any signs of moisture, mildew, or other deterioration.
- For embossing applications use Akona Concrete Bonding Additive in lieu of potable water. (See mixing instructions.)
- Typical drying time would be 1½ hours prior to using flooring adhesive.
- Do not use Feather Edge Pro for embossing cushion backed flooring or perimeter bonded flooring.

Refer to:

RFCl (Resilient Floor Covering Institute publication MRP-Nov95): Addressing Moisture Related Problems Relevant to Resilient Floor Coverings Installed Over Concrete
 WFNA (National Wood Flooring Association) publication: Installing Hardwood Flooring, Rev 3/10/98
 TCNA (Tile Council of North America) Handbook: Ceramic Tile Installation
 American National Standard Specifications: Installation of Ceramic Tile
 UBC (Uniform Building Code): 1997 Volume 1, Section 1906.3.10

Curing

- Feather Edge Pro is self-curing, however protect from excess heat, rapid air movement, and direct sunlight.
- The use of damp curing or the use of curing compounds is not recommended

Clean Up

Use soapy water to clean hands and tools immediately after use. Dried material must be mechanically removed. Use a waste water hardener (e.g. Congelz® or similar product) for cementitious waste disposal.

Limitations

- Follow all industry standard safety procedures when handling, such as gloves and eye protection. Wear gloves at all times, failure to do so can result in severe burns.
- Do not add any liquids other than potable water or Akona Concrete Bonding Additive to this product.
- Do not install if the substrate moisture vapor content exceeds 90% when tested using ASTM F2170 RH probes or the surface moisture vapor transmission exceeds 10 lb. / 1000 sq. ft. / 24 hr. when tested per ASTM F1869 Moisture Vapor Transmission (Calcium Chloride) procedure.
- Do not install if the substrate moisture vapor content (RH) or surface moisture vapor transmission rate (Calcium Chloride) exceeds flooring or adhesive manufacturer’s specifications.
- Do not use as an embossing leveler over cushioned back sheet goods or perimeter bonded sheet goods.
- Do not exceed 1/16 in. (1.5 mm) when used as an embossing leveler over sheet goods.
- Do not use over pressed wood.
- Keep out of contact with aluminum or galvanized surfaces.
- Do not use over unsealed gypsum or light weight concrete.
- Do not use for exterior applications.
- Do not use to level larger areas. Use a self-leveling underlayment product.
- Do not apply as a wearing surface.
- Do not over water.
- Do not apply when there is excessive heat or rapid air movement.
- Do not cover or fill control or expansion joints.

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com

Cautions

Read complete cautionary information printed on product container prior to use.

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 Rapid Patch brand product(s) under normal environmental and working

conditions. Because each project is different, TCC Materials cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

6. AVAILABILITY

To locate Rapid Patch products in your area, please contact:
 Phone: 1.651.688.9116
 Email: info@tccmaterials.com

7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that Seller’s liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

Shelf Life	Best when used within one year in original, unopened bags
Storage Conditions	Store dry, cool, out of direct sunlight. Best to condition material to 50-80°F (10°-27°C) before using.
Color	Gray

WARNING: INJURIOUS TO EYES

KEEP OUT OF REACH OF CHILDREN

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