

Tech Patch-MP Multipurpose Rapid Setting Skim Coat & Floor Patch

1 Product Name

Tech Patch-MP Multipurpose Rapid Setting Skim Coat & Floor Patch

2 Manufacturer

Custom Building Products
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3 Product Description

Tech Patch MP is a fast setting, calcium aluminate compound that provides a smooth finish on interior subfloors prior to the installation of a wide variety of floor coverings. Mix with water only to patch, level or skim coat concrete, OSB and plywood up to 1/2" (12 mm) thick per application. Install floor coverings in as little as 30 – 90 minutes.

Key Features

- Patches and smooths interior subfloors
- Apply from featheredge to 1/2"
- Install flooring in as little as 30 - 90 minutes

Uses

Suitable as an Underlayment for:

- Carpet
- Wood, parquet
- Vinyl composition tile (VCT), Luxury vinyl flooring LVT /LVP
- Sheet vinyl flooring, laminate
- Pavers, natural stone, terrazzo tile

Suitable Substrates

- Absorbent concrete
- Gypsum-based underlayment (meets ASTM F2419)
- Exterior grade plywood & OSB / APA or CANPLY Group 1
- Flooring manufacturer's approved wood underlayments
- Existing ceramic tile
- Primed cement terrazzo

*Special preparation or primers may be required

Composition of Product

Tech Patch MP is a blend of calcium aluminate cement, inorganic fillers and polymers

Benefits of Product in the Installation

- Quick-setting formula permits floor covering installation in as little as 30 – 90 minutes
- Use as a thin skimcoat to smooth existing finishes
- Patches and levels concrete and plywood to 1/2" (12 mm)

Limitations to the Product

- Interior use only.
- Do not bond to plank hardwood, particleboard, parquet, cushion or sponge back vinyl flooring, or other dimensionally unstable substrates.
- Not for use as a finished surface/wear layer.
- Do not use under moisture mitigation systems.
- Do not use when substrate temperature is below 50°F (10°C).
- Not for use in areas with continuous water exposure (ie: showers, swimming pools, spas, water features and fountains).
- See Flooring Manufacturers recommendations for Relative Humidity limitations and Moisture Vapor Emissions limitations.

Packaging

25 lb (11.34 kg) Bags

4 Technical Data

Applicable Standards

ASTM International (ASTM)

- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens)
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes¹
- ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- ASTM F3191 Field Determination of Water Absorption

Resilient Floor Covering Institute (RFCI) Recommended Work Practices for Removal of Resilient Floor Coverings

Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171.

American National Standards Institute (ANSI) ANSI A108.01 and A108.02 of the American National Standards for the Installation of Ceramic Tile



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Technical Properties Chart

Test	Method	Value
Vicat Set Time	ASTM C191	
Initial Set		Approx. 15 Minutes
Final Set		Approx. 20 Minutes
Compressive Strength	ASTM C109 Mod.	
1 Day		>1500 psi (10.3 Mpa)
7 Days		>3500 psi (24.1Mpa)
28 Days		>3500 psi (24.1 Mpa)
Adhesion	BS EN 13408	
Unprimed		>200 psi (1.38 Mpa)
Primed		>250 psi (1.72 Mpa)

Environmental Consideration

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product may contribute to LEED® certification.

5 Instructions

Installation

General Requirements When installing Finishes Using CUSTOM® Products

Note: Additional or specific details may be listed in other sections of this document or within other product datasheets to be used in the installation assembly. If these instructions are in conflict with other product recommendations, the most stringent requirements and limitations shall apply.

All substrates and surfaces must be structurally sound, stable and suitable for the project's usage including managing weight and deflection from live and dead loads for the lifetime of the structure. Concrete, cement-based and gypsum-based underlayment/patching compounds must be adequately cured and not exhibit signs of excessive moisture, efflorescence and hydrostatic conditions/issues beyond the finish product manufacturers' limits or other products within the assembly. CUSTOM®/CustomTech™ cement-based preparation products may be used in assemblies over concrete with high moisture vapor emission levels provided that other materials such as finish flooring, adhesives or membranes are recommended in these conditions. Consult the manufacturers for their limitations and requirements. Additionally, any sources of moisture are to be limited to initial concrete placement and not from sources such as water intrusion or from a lack of an effective vapor retarder/barrier.

Concrete is to have ≥ 3000 psi (20.7 MPa) compressive strength and lightweight or gypsum-based underlayment must obtain ≥ 2000 psi (≥ 13.8 MPa) compressive strength and tensile strengths ≥ 200 psi (≥ 1.4 MPa). Surfaces must be clean, dry and free from contaminants that would prevent or inhibit adhesion bonding. Contaminants or curing compounds should be mechanically removed before installation. Most CUSTOM® products require absorptive surfaces. To assess surface absorption, refer to ASTM F3191 for horizontal areas and place water droplets no higher than 1" (25mm) from the surface. Use a damp sponge to evaluate water absorption on vertical or overhead areas. Cracks in concrete 1/8" (3mm) or wider are generally considered to be structural. Cracks and differential (out of plane) substrate surfaces are to be evaluated and addressed prior to applying an installation system. Follow appropriate industry standards and individual product recommendations for treating concrete slab shrinkage cracks and slab joint treatment. Consult ASTM F710 for resilient, carpet tile, carpet and wood flooring; or ANSI A108 and TCNA -Movement Joints for ceramic tile and natural stone tile.

All surfaces must be flat and smooth (and properly pitched, level or plumb when required) prior to installing finishes. Flatness tolerances vary for finishes as shown below from the required plane, when measured from the high points in the surface. It is the responsibility of the installer to determine the suitability of the substrate and any required preparation work necessary to ensure a successful installation.

Industry Tolerances -Flatness and Pitch:

Ceramic tile <15" - 1/4 in. in 10 ft. (6 mm in 3 m) and no more than 1/16 in. in 1 ft. (1.6 mm in 0.3 m)

Ceramic tile $\geq 15"$ & Gauged Porcelain Tile/Panels - 1/8 in. in 10 ft. (3 mm in 3 m) & no more than 1/16 in. in 2 ft. (1.6 mm in 0.6 m)

Resilient, Carpet Tiles, Carpet - 3/16 in. (3.9 mm) in 10 ft and 1/32 in. (0.8 mm) in 12 in. (305 mm)

Hardwood – Concrete 1/8 - 3/16 in. in 10 ft radius (3 -3.9 mm in 305 cm radius)

Hardwood – Plywood 3/16 in. in 10 ft (3.9 mm in 305 cm) or 1/8 in. in 6 ft (3 mm in 183 cm)

Pitch - Exterior and drainage areas to be sloped at a minimum of 1/4 in. per linear ft (≥ 6 mm in 300 mm)

Substrate and ambient temperatures, relative humidity, UV exposure, excessive wind and inclement weather can affect product performance, drying or curing timeframes during and after installation. Acceptable temperatures for products, mixing water and additives are generally between 50°F - 90°F (10° - 32° C). The area where finishes are installed should be acclimated prior to installation by providing heat or cooling and protection as needed. These conditions are to stay in place during and after installation to allow products to properly cure. Disable radiant heating systems at least 24 hours prior, during and 72hrs after installation. Follow radiant heating system manufacturer's instructions for start-up procedures to gradually introduce heat. Follow industry guidelines for water and moisture exposure to installation assemblies, especially with fill and draining rates in water features.



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Consult individual product datasheets for recommendations and limitations regarding project conditions. Assembly mockups will determine suitability for these conditions on specific projects. Contact CUSTOM Technical Services for questions and product information (800) 282-8786.

General Surface Prep

USE CHEMICAL-RESISTANT GLOVES, such as nitrile, when handling product.

All surfaces must be structurally sound, clean, dry and free from contaminants that would prevent a good bond. Concrete must be fully cured. Refer to final flooring manufacturer's requirements for maximum moisture vapor transmission limitations. Smooth concrete surfaces, existing glazed tile, terrazzo, or polished stone may need to be roughened or scarified. Refer to Custom TechPrime™ A Acrylic Primer technical datasheet for use in lieu of mechanical preparation or when applying over Custom TechMVCTM Moisture Vapor and Alkalinity Barrier. For increased performance in demanding applications, concrete surfaces can be mechanically profiled and prepared by shotblasting, sandblasting, scarifying, diamond-grinding or other engineered approved methods (reference ICRI CSP 3 standards for ideal profile height). Any existing flooring must be well bonded and stripped of old finish.

Gypsum Based and OSB Underlayments

Gypsum-based underlayment must be sealed or primed to avoid issues related to mineral formation; OSB panels require a primer for adhesion. Gypsum substrates must obtain a minimum 2000 psi (13.8 MPa) compressive strength at the recommended cure time. The underlayment must be sufficiently dry and properly cured to the manufacturer's specifications for permanent, non-moisture permeable coverings. Surfaces must be structurally sound and subject to deflection not to exceed the current industry standards. All OSB and gypsum-based underlayment surfaces to receive Tech Patch MP must be primed with properly applied sealer or a primer coat of Custom® Tech Prime A Acrylic Primer, consisting of 1 part primer diluted with 3 parts clean, cool water in first coat; when dry, apply 1:1 dilution for second coat. Drying time depends on site conditions, but is normally less than 1 hour.

Bonding to Concrete Surfaces

Contaminants or curing compounds should be mechanically removed before installation. Concrete must be free of efflorescence and not subject to moisture beyond the floor covering manufacturers' limits or hydrostatic pressure. All concrete surfaces must be able to achieve tensile bond strengths in excess of 200 psi (1.4 n/mm²). For more information about concrete curing compounds see CUSTOM Building Products Technical Bulletin # 92 available on the website under Reference Library.

Bonding to Plywood Surfaces

Plywood floors, including those under resilient flooring, must be structurally sound and must meet all industry guidelines. For questions about proper subfloor installation, call Custom® Building Products.

Bonding to Cutback Adhesive

Adhesive layers must be removed. Use extreme caution; adhesives may contain asbestos fibers. Do not sand or grind adhesive residue, as harmful dust may result. Never use adhesive removers or solvents, as they soften the adhesive and may cause it to penetrate into the concrete. Adhesive residue must be wet-scraped to the finished surface of the concrete, leaving only the transparent staining from the glue. To determine desirable results, do a test bond area before starting. Refer to the RFCI Pamphlet, "Recommended Work Practices for Removal of Resilient Floor Coverings", for further information.

Mixing Ratios

Mix 4.0-4.25 qt (3.8-4.0- L) clean, cool water to a 25 lb (11.34 kg) bag of Tech Patch MP or for smaller applications mix approximately 1 part liquid to 3 parts powder.

Mixing Procedures

Slowly add powder to liquid while mixing with a high speed drill (650 RPM or more) and mixing paddle to a lump-free consistency. Mix only amounts that can be applied in 5-10 minutes depending on surface porosity and temperatures.

Application of Product

Apply material into all voids up to 1/2" (12 mm) thickness using a broad knife or trowel and finish flush with surface. For skim coating, use a smooth edged trowel to flatten the surface area. Only spot patching should be done on wood surfaces. If an area more than 5 ft. (1.5 M) in diameter is required, use an appropriate CustomTech™ selfleveling underlayment.

Curing of Product

Allow to dry for minimum 30 – 90 minutes. Drying time can vary with thickness, temperature and humidity.

Cleaning of equipment

Clean with water before material dries.

Health Precautions

This product contains Portland cement. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Use with adequate ventilation; do not breathe dust and wear a NIOSH approved respirator. If ingested, do not induce vomiting; call a physician immediately.

Conformance to Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6 Availability & Cost

Location	Item Code	Size	Package
USA	TPMP25T	25 lb (11.34 kg)	Bag

Contact the manufacturer or visit custombuildingproducts.com for more information about product cost and availability.



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7 Product Warranty

Obtain the applicable LIMITED PRODUCT WARRANTY at www.customtechflooring.com/reference-library/warranties/ or send a written request to Custom Building Products, Inc., Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured under the authority of Custom Building Products, Inc. © 2017 Quikrete International, Inc

8 Product Maintenance

Properly installed product requires no special maintenance.

9 Technical Services Information

For technical assistance, contact Custom Building Products.

10 Filing System

Additional product information is available from the manufacturer upon request.

Handling & Storage

Protect from freezing. Store in a cool, dry area.

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Coverage

SQUARE FOOT COVERAGE PER 25 LB BAG (SQUARE METER PER 11.34 KG). Coverage will vary depending on the texture of the surface being smoothed.

THICKNESS	MIN COVERAGE	MAX COVERAGE
1/16" (1.6 mm)	55.2 ft ² (5.13 M ²)	62.4 ft ² (5.80 M ²)
1/8" (3 mm)	27.65 ft ² (2.57 M ²)	31.39 ft ² (2.92 M ²)
1/4" (6 mm)	13.82 ft ² (1.28 M ²)	15.70 ft ² (1.46 M ²)
1/2" (12 mm)	6.91 ft ² (0.64 M ²)	7.85 ft ² (0.73 M ²)



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