



TOP SHELF® EPOXY PATCH FC

Meet Installation Demands at Any Skill Level

KRETUS® TOP SHELF® EPOXY PATCH FC is a 2-component, 100% solids system that works as a durable, moisture vapor resistant solution for rough and uneven surfaces. Trowel it over ceramic tiles or pitted and spalled concrete to smooth and prepare surfaces for a decorative finish or use it to bond prefabricated cove to walls and floors.

ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Anti-bacterial
- Fast Cure
- High Traffic and Impact Resistance
- Low Maintenance
- Low Odor
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Crack and Joint Repair
- Wall Cove, 1"x1"
- Adhesive for Prefabricated Cove Strips
- Grout Coat
- Patching
- Under Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential.

FINISH AND COLOR

- Matte, Unpigmented

PRECAUTIONS AND LIMITATIONS

- **UV Resistance:** Coating will amber over time. If color stability is important, use UV-stable Urethane Polymer Concrete RC UV, Polyurethane, Polyaspartic, or Acrylic Sealer. See kretus.com/products.
- **Prime Coat:** A prime coat may be required if stem walls are highly absorbent, if outgassing is suspected or prevalent, or if concrete is very porous or in poor condition. All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 4"
- Complete samples and onsite mockups to ensure desired results are achieved.
- **Application temperatures:** When temperatures increase, material cures faster. Material cures slower when temperatures decrease.
- Application times are based on test results compiled by lab technicians in a controlled setting.
- If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative.
- Coverage rates are for estimating purposes only. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer.
- Apply material when temperature is decreasing—adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- Recommended for Applicators level 3 and up. (See kretus.com/applicator-skill-level.)

COMPONENTS

Standard Kit

- Part A: Top Shelf® Epoxy Patch, 1 gal
- Part B: Top Shelf® Epoxy Patch FC, 1 gal

Larger kits may be available through KRETUS® distributor.

SAFETY, TESTING, AND WARRANTY

- **Safety:** Personal protective equipment and safety conditions must be considered before using any product. Review all relevant and current documentation including Safety Data Sheets (kretus.com/safety-data-sheets).
- **Testing:** Before installation: Test and look for any unknown site conditions and/or defects. To ensure desired results are achieved, the system should be tested in a small area on site before full installation begins.
- **Warranty:** For warranty to be upheld, Pre- and Post-Job Checklists (kretus.com/project-planning) must be completed.

STORAGE AND APPLICATION TEMPERATURES

Ideal Storage Environment	Dry, Out of Direct Sunlight, 60-80°F
Material Temperature During Application	50-70°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	41-85° F, <90% RH

Average Application Time

Ambient Temperature	50°F, 50 % RH	70°F, 50 % RH	100°F, 50 % RH
Working Time	15 min.	10 min.	5 min.
Recoat Window	4.5 hrs.	2 hrs.	1 hr.
Return to Service (Foot Traffic)	6 hrs.	3 hrs.	2 hrs.
Full Cure (Vehicle Traffic)	7 days	7 days	7 days

SURFACE PREPARATION

Before installing any coating, the substrate must be sound, meaning all necessary concrete repairs have been completed. It must be clean, dry, and free of any contaminants, moisture, materials, or particles that may hinder material's adhesion to the substrate. If applying directly over concrete, the substrate must be mechanically profiled to ICRI CSP 3. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Standard Kit Mix Ratio	A:B = 1 gal: 1 gal
Top Shelf® Epoxy Accelerant	8 oz. per standard kit
Mixing Tools	Use trowel and mixing board to combine.
Mixing Directions	Use trowel to scoop part A onto mixing board. Use trowel to fold part B into part A until color is consistent throughout mixture. DO NOT mix for more than 3 minutes.
Mixing Directions With Accelerant	Fold material together and pour accelerant onto material. Mix with trowel or putty knife. Use 8 oz. of accelerant per 1 qt of part A and 1 qt of part B.

Coverage Rates per Standard Kit

Crack and Joint Repair	See Joint and Filler Rates (kretus.com/joint-filler-rates).
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Premeasure components to make sure you are using the correct mix ratio. Combine components according to mix instructions. Continue mixing until the coating's consistency is uniform. The coating must remain thoroughly mixed during the application.

Keep a wet edge while applying product. Wear spiked shoes when walking on material. For more applications and coverage rates, see KRETUS® General Overview (kretus.com/product-general-overviews).

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	40 mg loss
Adhesion Strength	ASTM D4541	400 psi, concrete failure
Adhesion Strength	ASTM D4541	400 psi, vinyl failure
Adhesion Strength	ASTM D4541	500 psi, natural quartz failure
Adhesion Strength	ASTM D4541	450 psi, color quartz failure
Compressive Strength	ASTM D695	13,700 psi
Flame Spread/Critical Flux	ASTM E648	Class 1
Flame Spread/Rate of Burning	ASTM D635	Self-extinguishing
Flexural Strength	ASTM D790	9,000 psi
Hardness (Shore D)	ASTM D2240	85
Impact Resistance	ASTM D2794	120 in-lbs.
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Modulus of Elasticity	ASTM D790	5.0 x 10 ⁵ psi
Moisture Vapor Permeance	ASTM E96	0.08 perms
Tensile Elongation at Break	ASTM D638	5%
Tensile Strength	ASTM D638	7,800 psi
Thermal Coefficient of Linear Expansion	ASTM D696	18.0 x 10 ⁻⁶ in/in/°F
Water Absorption	ASTM D570	<0.05%
Moisture Vapor Emission Rate	ASTM F1869	<25 lbs.
UV Resistance	ASTM D4587	Level 1
Relative Humidity (thickness ≥ 16 mils)	ASTM F2170	<99%

CHEMICAL & STAIN RESISTANCE

1 = Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.

2 = Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.

3 = High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.

NR = Not recommended

Acetic Acid (Component of Vinegar), 10%	1	Boric Acid, 4%	1
Acetic Acid, 30%.....	2	Brake Fluid, DOT 3	1
Acetone.....	NR	Chromic Acid, 10%.....	3
Ammonia, 30%.....	1	Chromic Acid, 30%.....	3
Ammonium Hydroxide, 30%.....	1	Citric Acid, 30%.....	1
Antifreeze (Coolant).....	1	Ethanol, 95%.....	NR
Benzene (Component of Crude Oil).....	3	Ethyl Acetate, 99% (Food/Beverage Facility)	NR
Benzyl Alcohol	3	Formaldehyde, 37%	3
Betadine, 11%	NR	Premium Gasoline.....	1

Hydraulic Fluids		Oxalic Acid, 10%.....	1
(Machinery, Automobile, Aviation)	2	Phosphoric Acid, 20%	3
Hydrochloric Acid, 10%.....	3	Potassium Hydroxide, 30%	
Hydrochloric Acid, 30%.....	3	(Alkaline Batteries, Soap Manufacturing).....	1
Hydrofluoric Acid, 10%	1	Propylene Glycol	1
Hydrofluoric Acid, 30%	3	Silver Nitrate, 20% (Photo Labs)	3
Hydrogen Peroxide, 10%	NR	Sodium Chloride, 20%.....	1
Hydrogen Peroxide, 50%	NR	Sodium Hydroxide (Caustic Soda), 50%	1
Iodine, 2%.....	3	Sodium Hypochlorite (Bleach), 10%	2
Isopropyl Alcohol	3	Sodium Hypochlorite (Bleach), 30%.....	3
Jet Fuel.....	1	Sodium Persulfate	
Lactic Acid, 30% (Dairy Facility).....	NR	(Bleaching and Oxidizing Agent).....	3
Lime Juice	2	Sulfuric Acid, 37% (Battery Acid)	NR
Magnesium Hydroxide.....	1	Tannic Acid, 20%.....	3
MEK (Methyl Ethyl Ketone)	NR	Tartaric Acid, 10%	1
Methanol	NR	Transmission Fluid	1
Methylene Chloride	NR	Urine (Dog and Cat)	1
MIK (Methyl Isobutyl Ketone).....	NR	Urea (Nitrogen-Rich Fertilizer).....	1
Mineral Oil	1	Vinegar, Distilled	1
Motor Oil, SAE 30	1	Water (Hard Water from Well)	1
Mineral Spirits.....	NR	Whisky	1
Mustard, Yellow	2	Wine, Cabernet Sauvignon	2
Nitric Acid, 30%	NR	Xylene	3
Oleic Acid	1		

Pigments or colorants may affect working times, reduce chemical resistance, or increase potential for stain. Coatings tested at ambient temperature over 1-3 days' exposure to chemical. To ensure desired results are achieved, products should be tested on site before installation.

DISCLAIMER: The information contained in this document is intended for use by KRETUS®-qualified and -trained professionals. This is not a legally binding document and does not release the specifier from their responsibility to apply materials correctly under the specific conditions of the construction site and the intended results of the construction process. The most current valid standards for testing and installation, acknowledged rules of technology, as well as KRETUS® technical guidelines must always be adhered to. The steps given in this document and other mentioned documents are critical to the success of your project.