



POLY PATCH FC

This Joint Filler is Ready to Roll ...

Repair and fill random cracks and protect joints from spalling with rapid-setting flexible, solvent-free **KRETUS® POLY PATCH FC**. This two-part, 100%-solids polyurea liquid system moves with adjacent concrete and withstands heavy industrial traffic.

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
- Antibacterial
- High Impact Resistance
- High Traffic and Hot Tire Resistance
- Low Maintenance
- Low Odor
- Rapid Set: Cut in 8 Minutes, Full Cure in 30 Minutes
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Interior (if applying material outdoors, use KRETUS® Poly Patch EZ)
- Horizontal Concrete Surfaces
- Industrial/Heavy-Duty Traffic
- Repair Cracks and Moving and Non-Moving Joints
- Fill New Construction Saw-Cut Joints and Control Joints
- Protect Joint Edges from Spalling
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

FINISH AND COLOR

- Gloss, Pre-Pigmented or Clear
- **Colors Available:** Poly Colorant (see kretus.com/color-charts)

PRECAUTIONS AND LIMITATIONS

- **Outdoor application:** If applying material outdoors, use KRETUS® Poly Patch EZ.
- Use in areas where operation temperatures remain between 20°F (-7°C) and 120°F (49°C). For lower temperatures, contact your KRETUS® Technical Representative.
- The thicker the application, the faster it will cure. Do NOT apply any single layer thicker than 2 inches.
- Do NOT install under VCT or any nonbreathable flooring systems.
- **Mixing:** Use a static mixer with dual-cartridge caulking gun or dual-feed power pump to combine and dispense material. Do NOT combine Part A with Part B by hand. Short gel time (1-2 minutes) makes manual dispensing impractical.
- **Application temperatures:** Material cures faster as temperature increases. Material cures slower as temperature decreases. All times were measured and recorded under controlled lab conditions at 70°F. Working and cure times vary based on ambient conditions. Apply material when temperature is decreasing—adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning. If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative.
- DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- 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.
- Complete samples and onsite mockups to ensure desired results are achieved.
- Recommended for Applicators level 4 and up. (See kretus.com/applicator-skill-level.)

COMPONENTS

Standard Kit (2 gallons)

- Part A: Poly Patch, Part A, 1 gal
- Part B: Poly Patch, Part B, FC, 1 gal
- If pigmenting, add Poly Colorant to Part A

Bulk Kit (10 gallons)

- Part A: Poly Patch, Part A, 5 gal
- Part B: Poly Patch, Part B, FC, 5 gal
- If pigmenting, add Poly Colorant to Part A

If pigmenting, Poly Colorant ratio depends on which color you choose:

Dark colors: Add two 16-oz colorant packs (32 oz) to 5 gallons Part A.

- Black
- Dark Gray
- Enchanted Green
- Light Gray
- Medium Gray
- Mocha
- Tan
- Tile Red

Light colors: Add three 16-oz colorant packs (48 oz) to 5 gallons Part A.

- Beige
- Handicap Blue
- Latte
- Safety Blue
- Safety Red
- Safety Yellow
- Shadow Gray
- White

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	65-85°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	35-55°F, <98% RH (Relative Humidity)

Average Application Time

Ambient Temperature	10-25°F, <98% RH	35-55°F, <98% RH	65-85°F, <98% RH
Working Time	min	min	min
Tack Free	min	min	min
Cut Time	min	min	min
Full Cure (Traffic Ready)	hours	hours	min

SURFACE PREPARATION TOOLS & EQUIPMENT

- HEPA Dust Extractor/Collector
- Concrete Saws

SURFACE PREPARATION

Before installing any KRETUS® joint filler, surface must be

- **Clean:** Remove any and all saw laitance, dirt, debris, coatings, sealers, moisture, and anything that could prevent filler from adhering to surface. Clean both sides of the joint/crack or use a dustless concrete saw with a diamond blade that is slightly wider than the crack/joint or sandblast.
- **In operational condition:** To allow for proper shrinkage and lessen the risk of joint filler separating from concrete, ACI recommends a slab cure for 60-90 days or longer. Final operating temperatures should be stabilized and held for 7-14 days if possible—this is especially important in frozen/refrigerated goods areas.

If these conditions cannot be met or unusual circumstances exist, contact your KRETUS® Technical Representative.

MIXING AND APPLICATION

Standard Kit Mix Ratio	A:B = 1:1
Poly Colorant	16 oz per standard kit
Mixing Tools	Do NOT combine Part A with Part B by hand. Instead, use installation tools to combine and dispense material. If adding color, use a low-RPM, low-torque mixing drill until color is uniform.
Mixing Directions	See General Installation section
Mixing Directions With Colorant	DO NOT combine Part A and Part B before adding color. First, add Poly Colorant into Part A and mix with a low-torque, low RPM drill until color and consistency are uniform.

Coverage Rates per Standard Kit

Crack and Joint Repair, 1/8" W x 1/8" D	1,231 lf/gal
Crack and Joint Repair, 1/4" W x 1/4" D	307 lf/gal
Crack and Joint Repair, 1/2" W x 2" D	18 sf/kit
Crack and Joint Repair	See Joint and Filler Rates (kretus.com/joint-filler-rates).

APPLICATION TOOLS AND EQUIPMENT

- dual-component joint-fill pump
- dual-component gun
- dual-cartridge container
- static mixer application accessories
- razor/cutting tool
- 20 to 40-grit clean, kiln-dried sand
- foam backer rod

GENERAL APPLICATION

- Use a static mixer with a 1/2" diameter and a 30–32 element with a dual-cartridge caulking gun or dual-feed power pump. Set power dispensing system to a 1:1 ratio by volume. Perform ratio checks periodically throughout process to ensure proper cure. Clean and remove any residual filler from previous installations before using dispersing equipment, including lines and pump tanks.
- Fill joints/cracks from bottom to top in 1-2 passes using a dispensing tip that fits into the joint/crack. Be careful to avoid trapping air bubbles. Slightly overfill, leaving a crowned profile, and allow to cure.
- After 8 minutes, shave material flush with surface. Cut time will depend on operation temperatures.

- For Ground or Polished Concrete: You may install filler before grinding or honing if the first tool used is 40 grit or higher, or install before the last metal or transitional tooling step. Before honing or grinding, allow filler to cure for 30 minutes if using a wet process. Wait 3 to 4 hours if using a dry process.

ISSUE	REPAIR
Random Surface Cracks, <1/8" to <2" wide	Install filler to full crack depth and width.
Spalling Along Slab/Joint Edges or Along Rebar, <2" wide x <2" deep	Install filler to full depth and width. Larger spalls require patching.
Spalling , >2" wide x >2" deep	Requires patching with Urethane Polymer Concrete or Polyaspartic mortar or Top Shelf® Epoxy mortar.
Sawcut Contraction and Control Joints, <2" deep	Install filler to full depth and width.
Sawcut Contraction and Control Joints, >2" deep	Choke off base with silica sand or foam backer rod* to prevent excessive seepage. If using backer rod, it must be at least 2" below the surface. Install filler to full width and at least 2" depth.
Non-sawcut Contraction and Control Joints, <2" deep	Install filler to full depth and width.
Non-sawcut Contraction and Control Joints, >2" deep	Choke off base with silica sand or foam backer rod* to prevent excessive seepage. If using backer rod, it must be at least 2" below the surface. Install filler to full width and at least 2" depth.
Maintenance: Gap Between Filler and Concrete Edge, credit card width or larger	Clean and fill separation to full depth and width.
Maintenance: Filler Dips Forming a U-shape Between Joint/Slab Edges	Remove existing filler. Re-chase or saw cut joint. Clean and refill joint to full depth and width.
Maintenance: Spalling or Deterioration of Joint/Slab Edge	Remove existing filler. Re-chase or saw cut joint. Clean and refill spall to full depth and width.

***NOTE:** All saw-cut joints less than 2" deep will reject foam backer rod. Do NOT install backer rod in any joint less than 2" deep.

PHYSICAL PROPERTIES

Total Solids	100%
Hardness, Shore A/Shore D (ASTM D2240)	92/45
Tensile Strength (ASTM D638)	970 psi
Tensile Elongation (ASTM D638)	250%
Adhesion to Concrete (ASTM D4541)	> 400psi, concrete failure
Part A (Polyol) Viscosity	2700 cP
Part B (Isocyanate) Viscosity	950 cP

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	Antifreeze (Coolant).....	1
Acetic Acid, 30%.....	2	Benzene (Component of Crude Oil).....	1
Acetone.....	1	Benzyl Alcohol	1
Ammonia, 30%.....	1	Betadine, 11%	1
Ammonium Hydroxide, 30%	1	Boric Acid, 4%.....	1

Brake Fluid, DOT 3	1	Mineral Spirits.....	1
Chromic Acid, 10%.....	1	Mustard, Yellow	1
Chromic Acid, 30%.....	1	Nitric Acid, 30%	NR
Citric Acid, 30%.....	1	Oleic Acid	1
Ethanol, 95%.....	1	Oxalic Acid, 10%.....	1
Ethyl Acetate, 99% (Food/Beverage Facility)	1	Phosphoric Acid, 20%	2
Formaldehyde, 37%	3	Potassium Hydroxide, 30%	
Premium Gasoline.....	1	(Alkaline Batteries, Soap Manufacturing).....	1
Hydraulic Fluids		Propylene Glycol	1
(Machinery, Automobile, Aviation)	2	Silver Nitrate, 20% (Photo Labs)	3
Hydrochloric Acid, 10%.....	1	Sodium Chloride, 20%.....	1
Hydrochloric Acid, 30%.....	3	Sodium Hydroxide (Caustic Soda), 50%	1
Hydrofluoric Acid, 10%	1	Sodium Hypochlorite (Bleach), 10%	1
Hydrofluoric Acid, 30%	3	Sodium Hypochlorite (Bleach), 30%.....	2
Hydrogen Peroxide, 10%	1	Sodium Persulfate	
Hydrogen Peroxide, 50%	1	(Bleaching and Oxidizing Agent).....	3
Iodine, 2%.....	3	Sulfuric Acid, 37% (Battery Acid)	2
Isopropyl Alcohol	2	Tannic Acid, 20%.....	3
Jet Fuel.....	1	Tartaric Acid, 10%	1
Lactic Acid, 30% (Dairy Facility).....	3	Transmission Fluid	1
Lime Juice	1	Urine, Dog or Cat	1
Magnesium Hydroxide.....	1	Urea (Nitrogen-Rich Fertilizer).....	1
MEK (Methyl Ethyl Ketone)	1	Vinegar, Distilled	1
Methanol	1	Water (Hard Water from Well)	1
Methylene Chloride	NR	Whisky	1
MIBK (Methyl Isobutyl Ketone).....	1	Wine, Cabernet Sauvignon	1
Mineral Oil	1	Xylene	1
Motor Oil, SAE 30	1		

Pigments or colorants may reduce chemical resistance or increase potential for stain. Coatings tested at ambient temperature over 1-3 days' exposure to chemical. Before completing an installation, products should be tested for chemical resistance on site.

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.