

**Technical
Data Sheet**



Willamette Valley Company
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Partnering through service,
innovation, and integrity

FastPatch® CFC

Fast-setting Crack Filler for Concrete

DESCRIPTION

FastPatch CFC is a rapid setting two-part polyurethane designed for concrete repair. It is designed for damaged concrete surfaces where cracks, spalls and edge breaks must be filled in to extend the life of the concrete. Its combination of fast set, high strength and low viscosity make it ideal for areas which must be brought to level. It may be left uncoated after cure, or standard concrete coatings may be applied over it.

WHERE TO USE

- **Walls & Floors** – cracked or spalled concrete
- **Joints** – broken corners and edges
- **Before Coating** – accepts most concrete primers
- **Low Temperature Applications** – cures on cold substrates

FEATURES AND BENEFITS

- **Superior Adhesion** – tight bond to substrate without primer
- **Very Low Viscosity** – penetrates and levels on surfaces
- **Sets in Minutes** – rapid return to service
- **Toughness** – does not become brittle with age
- **Ease of Application** – can be static mixed or manually applied

PACKAGING

600-mL Cartridge
1-Gallon (3.8 L) Kit

COLORS

Gray

YIELD

600-mL Cartridge = 36.6 in³ (599.77 centimeters³)
1-Gallon Kit = 231 in³ (3785 centimeters³)

SHELF LIFE

1 year when properly stored.

STORAGE

Store and ship this product in a clean, dry, low-humidity, shaded or covered environment at 60 to 90° F (15 to 32° C).

TECHNICAL INFORMATION

Typical Properties

VOC , lbs/gal (g/L), ASTM D 2369	2.6 (300)
Viscosity , cps, ASTM D 4878, mixed	70
Service temperature , ° F (° C)	-22 to 170 (-30 to 82)
Gel time , min. at 70° F (21° C)	2-4
Set Time min.	5-20
Concrete adhesion , psi (MPa), ASTM D 4541	> 800 (5.5) Substrate failure
Hardness , Shore D, ASTM D2240	75
Tensile Strength , psi (MPa), ASTM D412	5000 (35)
Elongation , %, ASTM D412	10
Tear Strength , pli (N/m), ASTM D624	250 (43)

Processing Parameters

Ratio by volume Resin : Iso	1 to 1
Ambient application temperature , ° F (° C)	32 to 104 (0 to 40)
Application Equipment	Pneumatic or battery-powered electric cartridge dispenser with 6x30 static mixer, or bulk mix with multi-blade mechanical mixer, or manually mix with paint stirrer

APPLICATION

SURFACE PREPARATION

CONCRETE

1. The concrete surface being repaired must be fully cured 28 days, structurally sound (200 psi or greater according to ASTM D7234), clean (ASTM D4258), and dry (less than 5% moisture, ASTM E1907).
2. Concrete joints must be sound, dry and clean of all foreign matter, including old joint filler, asphalt, tar, paint, wax, rust, membranes and curing/parting compounds. Contaminants present can result in poor adhesion. Apply product only if surface temperature is 5° F (3° C) above dew point to avoid application over damp surface.
3. Remove any surface contaminants before applying FastPatch CFC by grinding, blasting or wire brushing.
4. Use a minimum 120 psi continuously dry compressed air to blow out loose debris, dirt and dust prior to applying product. Moist concrete can be torched dry. If moisture returns immediately after torching, stop and do not install FastPatch CFC in this area.
5. Remove joint sealant by saw cut. If oil or other contaminants are present at the joint surfaces, cut away enough material to expose clean, sound surface.
6. FastPatch CFC is intended for crack and spall repair. It is not for joint filling or over areas which may expand or contract significantly. Movement of the underlying concrete may cause cracking along the sides of the repair, or reflective cracks in a topcoat. Joints must be allowed freedom of movement; use FastPatch EJC family of joint compounds as directed.
7. FastPatch CFC is not recommended for use on asphaltic materials, bare ground, dirt, grass or other non-structural surfaces. Contact your WVCO representative for recommendations, and before using on surfaces intended for immersion service.

PROCESSING

1. If possible, precondition material to 70°F (21°C) before use.
2. Mix resin 1-2 minutes in its original container before use. For cartridge use, shake each cartridge for at least 1 minute before use. Do not dilute either resin or iso with any solvents. Contact WVCO for additional mixing recommendations.

APPLICATION

1. Before application, protect adjacent surfaces with tape or other kinds of protective barriers. Corner and edge repairs require damming the areas with tape to keep the material in place during cure.
2. Use FastPatch CFC only in well-ventilated areas. The material contains solvent which may cause irritation to eyes, skin and lungs, and can be a combustion hazard. Wear appropriate PPE when handling. Consult the MSDS for additional information.
3. Concrete is a porous material that contains air. When the temperature of the concrete rises, the air expands. This phenomenon, out-gassing, may produce pinholes or blisters in the filler. To reduce the risk of pinholes from out-gassing, apply FastPatch CFC when the concrete temperature is stable or dropping.
4. Cracks in concrete may be deeper than they appear. The low viscosity of FastPatch CFC may allow material to fall through the surface, leaving gaps or holes visible. These gaps may be repaired by pushing pumice sand into the gap and dispensing FastPatch CFC over it, or by mixing pumice sand 1:1 by volume with resin/iso premix, and pushing this mix into the gap.
5. Saw cuts and cracks wider than 1/8" (3 mm) may be filled with backer rod of appropriate diameter before dispensing FastPatch CFC.
6. Contact your WVCO representative for recommendations on other repair scenarios.

MANUAL MIXING AND APPLICATION

PREPARATION

1. FastPatch CFC can be mechanically mixed using a mixing blade and drill, or manually with a paint stir stick. Care must be taken to mix and apply the material onto the concrete surface rapidly to avoid pot life issues.

2. Only mix material in a 1:1 (resin:iso) ratio by volume. Do not dilute either component or the final mixture with any solvent. See table below for mixing ratios.
3. Protect the surfaces around the application area to prevent contamination during the installation.
4. Ensure that surfaces are ready for application of crack filler before applying mixed material.
5. Ensure that the mixing station is a short distance from the application area, as pot life is relatively short.

RECOMMENDED MIXING VOLUMES

Final Volume	Mix Container	Resin	Iso
1 qt(1L)	1 gal(3.8L)	1 pt(0.5L)	1 pt(0.5L)
1 gal(3.8L)	2 gal(7.6L)	1/2 gal(1.9L)	1/2 gal(1.9L)

MIXING AND APPLICATION

1. Add FastPatch CFC resin to an appropriate container.
2. Add the isocyanate to the mixing container and mix for 15-30 seconds or until uniform. Scrape the bottom and sides of the container during mixing to ensure no unmixed material remains.
3. All of the resin and iso must be thoroughly mixed before application. The material may not cure properly if it is improperly mixed. Signs of poor mixing include swirls and soft, tacky spots in the material which do not harden.
4. IMMEDIATELY apply FastPatch CFC onto the surface by pouring and allowing material to self-level. Material may be placed more exactly using a squeegee or spatula. Do not overfill. If adjacent areas are uneven, fill to the lower height. If material begins to gel, stop and dispose of solidified material.
5. When the material is on the substrate surface, the working life is approximately 4 minutes at 70°F, but will vary with temperature. If desired add topping sand to refusal while material is still tacky.
6. If neat material falls through the crack leaving gaps visible at the surface, fill the gap area with pumice sand until sand is just below the surface, then finish with FastPatch CFC. Alternatively sand may be mixed at 1:1 by volume with premixed material and pushed into the crack with a plastic or wooden spatula. Slightly underfill the crack when using sand/filler premix.
7. Allow material to cure at least 10 minutes before checking for set. Material should form a smooth, homogeneous finish. Excess material can be scraped or sanded. Allow at least 24 hours cure before topcoating.
8. If FastPatch CFC needs to be reapplied over itself after cure, sand and wipe the surface with acetone before application.

CARTRIDGE APPLICATION

1. Use a 1-to-1 dispenser, either pneumatic or battery-powered electric preferred (maximum of 40 psi for pneumatic).
2. Keep the cartridge upright during assembly.
3. Remove the retaining nut and caps from the cartridge.
4. Place mix tube on cartridge nozzle and hand tighten the retaining nut over the mix tube.
5. Keep cartridge upright and load into applicator gun.
6. Begin dispensing with cartridge upright to remove any trapped air.
7. Dispense initial material (20-40mL) outside the repair area and discard.
8. Dispense remaining material onto the repair area. Avoid triggering on and off to keep the materials on ratio. If adjacent areas are uneven, fill to the lower height. Do not overfill. Change mix tubes if dispensing stops for more than 30 seconds at 70°F (21°C).
9. Topping sand may be added to refusal while the material is still tacky. If a smooth finish is desired, after material sets, excess may be sanded smooth and if needed top coated.

HEALTH AND SAFETY

Before handling, you should become familiar with the Material Safety Data Sheet (MSDS) regarding the risks and safe use of this product. To obtain an MSDS please call 800-333-9826 or send an email to: msds@wilvaco.com

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