

## DURACUIRE FAST CURE CONCRETE PATCH KIT

Quick repair concrete patch for major concrete imperfections

**Description:** The Duracuire Fast Cure (FC) Concrete Patch kit consists of two components: a concrete aggregate and a mineral oxide accelerator. When mixed with water and clear Hydro Polymer, the mixture acts as a high-performance, fast-setting, non-shrink concrete repair material.

**Areas of Usage:** Designed for general and structural concrete repair especially where concrete damage is extensive. May be used for both interior and exterior applications. Because the product sets in 15 minutes and achieves structural strength in 1 hour, subsequent concrete preparation procedures (e.g., grinding) and coating installation may take place within the same day.

<b>Features / Advantages:</b>	Sets in 15 minutes	Solvent free
	Structural strength in 1 hr	Reduces installation duration
	Permits top coating in 1 hr	Interior & exterior applications
	Superior adhesion to concrete	Low odor
	Low VOCs	Easy application with trowel

**Surface Preparation:** Remove dust, laitance, grease, curing compounds, waxes and other contaminants. Then, using a spray bottle or pump sprayer, prime the repair area by saturating with a clear Hydro Polymer 4:1:2 (water) mixture. Mixing procedures are detailed in GFC SOP GFC-122, titled "Duracuire Fast Cure Concrete Patch Application"

**Technical Data:** *Note: Data / results may differ due to statistical variations, mixing methods and equipment, temperature, application methods, actual site conditions and curing conditions*

**Packaging:** Both the concrete aggregate (55 lbs) and a vacuum-sealed bag of mineral oxide accelerator (2 lbs) are contained within one 5-gallon plastic container (total of ~57 lbs).

**Mixing Ratio:** The multi-component concrete patch material is prepared in a ratio of 4:1:1 with added accelerator (4 parts concrete aggregate, 1 part water, and 1-part "pure" clear Hydro Polymer 4:1, with 1 ounce of mineral oxide accelerator added for each part of the concrete aggregate added).

**Application:** Pour the prepared concrete patch mixture into the repair area. For deep/large volume repairs, add pea gravel as filler before pouring the concrete patch mixture into the repair area. Using a round-edge trowel, force the mixture into the repair area and smooth out (there should be a slight overfill). Spray the concrete patch with water to assist smoothing and subsequent curing. Feather out the edges and let the patch dry for ~1 hour. After 1 hour, use a hand grinder or Lavina diamond grinder to grind down the patches to provide a smooth surface for subsequent coating.

**Average Dry Time at 77°F (25°C):** Dry times vary depending upon weather conditions. **Dry Time (70°F; 21°C):** 1 hour. **Working Time (70°F, 21°C):** 10 minutes. **Vehicle Traffic (70°F; 21°C):** 24 hours. **Full Cure at 72°F (22°C):** 28 days.

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**Technical Data (Con't):** *Data / results may differ due to statistical variations, mixing methods and equipment, temperature, application methods, actual site conditions and curing conditions*

Reducing: Reduce 4 parts of the concrete aggregate with 1 part water and 1 part clear Hydro Polymer.

UV Stability: Not applicable (use appropriate top coat for exposure)

VOC: 0 grams/liter when the concrete aggregate is mixed with water.

Environmental Advantages: Meets LEED values

Compressive Strength: 1 hr – 3000 psi; 3 hrs – 5000 psi; 24 hrs – 6000 psi; 7 days – 7000 psi; 28 days - 9000 psi (ASTM C109 Mod.)

Theoretical Coverage: Each kit will yield approximately 0.5 cubic feet from featheredge to 4" (10 cm). For deeper sections, first add pea grave or other aggregate.

Splitting Tensile: 7 days – 700 psi; 28 days – 880 psi (ASTM C496)

Flexural Strength: 7 days – 600 psi; 28 days - 800 psi (ASTM C78)

Slant Shear Bond: 24 hours – 1500 psi; 28 days – 2500 psi (ASTM C882 per C928)

Pot Life: Pot Life = 5 – 10 minutes at 70°F (21°C).

Shelf Life: 12 months when stored properly in a dry location, protected from moisture, out of sunlight and in an undamaged package.

**Mixing:** Using a 16-oz deli cup, add 4 parts of the concrete aggregate and 1 part water. Mix for 2 minutes using a corded drill and approved drill attachment (an Elitexion heavy duty compound mixer, 19-7/8" in length, is recommended). After mixing for 2 minutes, add 1 part of the pre-prepared Hydro Polymer 4:1 and 1 oz of mineral oxide accelerator for each part concrete aggregate added. Mix for 1 additional minute.

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**Application Procedure:** After priming with the clear Hydro Polymer 4:1:2 mixture, pour the pre-prepared Duracuire Fast Cure Concrete Patch mixture into the repair area and slightly overfill. For deep/large volume repairs, add pea gravel as filler before pouring the concrete patch mixture into the repair area.

Using a round-edge trowel, force the mixture into the repair area and smooth out. Spray the concrete patch with water to assist smoothing and subsequent curing. Feather out the edges and let the patch dry for ~1 hour. After 1 hour, use a hand grinder or Lavina diamond grinder to grind down the patches to provide a smooth surface for subsequent coating. Detailed application instructions are provided in SOP GFC-122, titled "Duracuire Fast Cure Concrete Patch Application".

**Handling and Storage:** Store in a dry location, protected from moisture, out of sunlight and in an undamaged package. Refer to the SDS for proper PPE usage.

**• KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • INDUSTRIAL GRADE • HANDLING AND INSTALLATION MUST BE PERFORMED BY ECO-CORFLEX-CERTIFIED APPLICATORS ONLY •**

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