



The Willamette Valley
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Partnering through service,
innovation, and integrity

FastPatch 5400 Kit

High Compression Strength Repair Material

DESCRIPTION

FastPatch 5400 is a tough concrete repair system with patent pending integrated aggregate. FastPatch 5400 is specifically designed to meet 5,000 psi requirements while maintaining excellent flexibility and resilience. This product is installed as a kit with FastPatch Aggregate to create a tough and cost effective composite repair.

WHERE TO USE

- Road/Highways
- Bridges
- Airports
- Sidewalks

FEATURES AND BENEFITS

- Rapid Cure - fast return to service
- 100% Solids, No Odor, Dust or VOC
- Excellent Concrete Adhesion
- Extremely Tough
- High Yield Kit
- Easy to Install

PACKAGING

4.0-Gallon Kit (0.5-cu ft) – 1/2 bag of added FastPatch Aggregate (sold separately)

COLORS

Gray

SHELF LIFE

1 year when properly stored.

STORAGE

Store and ship this product in clean, dry, low-humidity, and shaded or covered environments between 50 and 90°F (10-32°C)

TYPICAL PROPERTIES

FastPatch 5400 with FastPatch Aggregate Properties (polymer and aggregate)		
Adhesion to concrete, psi (MPa), ASTM D7234, unprimed		≥400 (2.76)*
Adhesion to steel, psi (MPa), ASTM D7234, unprimed		≥300 (2.06)
Wet Bond Strength to Concrete, psi (MPa), ASTM C307, TEX-618-J modified, unprimed		≥ 600 (4.13)
Kit working time, min.	Kit tack-free time, min.	Kit temp.
5-6	10	104°F (40°C)
10-12	30	77°F (25°C)
20-22	60	59°F (15°C)
Ultimate hardness, Shore D, ASTM D2240		65-70
VOC, lbs/gal (g/L), ASTM D2369		0
Viscosity, cP, ASTM D4878, Mixed (without aggregate)		6,000
Service temperature, °F (°C)		-40 - 185 (-40 - 85)
ASTM C579 Compression Strength vs Cure time		
	2" cubes	3"x6" cylinders
2 hours RT	1,700 psi (11.72 MPa)	1,100 psi (7.58 MPa)
24 hours RT	3,300 psi (22.75 MPa)	3,200 psi (22.06 MPa)
Full Cure	5,700 psi (39.30 MPa)	4,900 psi (33.78 MPa)

* Substrate failure mode. Limiting factor for 5400 concrete adhesion is the substrate quality.

FastPatch 5400 Neat Polymer Properties	
Shore Hardness, ASTM D2240, full cure	94-96A, 65-70D
Elongation, %, ASTM D412, full cure	≥20
Tensile Strength, psi (MPa), ASTM D412, full cure	3000 (20.7)

Chemical Resistance via ASTM D543		
	Δ % volume	Δ % weight
water	no change	1.59 ± 0.13
10% NaCl	no change	1.09 ± 0.03
10% NaOH	no change	0.79 ± 0.03
10% CaCl ₂	no change	1.2 ± 0.5
5% H ₂ SO ₄	no change	0.89 ± 0.01
IRM-901 (ASTM Oil #1)	no change	0.96 ± 0.08
IRM-902 (ASTM Oil #2)	no change	1.3 ± 0.22
IRM-903 (ASTM Oil #3)	no change	1.20 ± 0.03
Jet Fuel A	no change	1.50 ± 0.11
Skydrol	110 ± 80	55 ± 20
AVL De Icer	no change	1.7 ± 0.4
Royco 756	0.7 ± 0.2	0.96 ± 0.11

APPLICATION INSTRUCTIONS

SURFACE PREPARATION:

Concrete

1. The concrete must be structurally sound, clean, and the surface should be dry. FastPatch 5400 can be applied to concrete newer than 28 days and in some cases as soon as 24 hours from when the concrete was poured. Contact your WVCO representative for more details.
2. Concrete surfaces must be free of dirt, moisture, loose particles, oil, asphalt, tar, paint, wax, rust, waterproofing and curing/parting compounds, membranes, and any previously installed materials or other foreign matter. Laitance and efflorescence must be removed prior to installation.
3. Clean concrete surfaces by grinding, abrasive blasting, wire brushing, saw cutting, or other appropriate method.

Steel

1. Steel surfaces must be cleaned before blasting according to SSPC-SP1. Remove any sharp edges and other surface imperfections.
2. Dry abrasive blast surface according to SSPC SP-6/NACE No. 3 Commercial Blast (minimum).
3. Test the surface for non-visible soluble salt contamination according to NACE 6G186. If necessary treat with CHLOR*RID or equivalent salt remover until less than 3ug/cm² is detected.

PRIMING:

1. Priming all surfaces is always recommended as it will optimize adhesion and durability. Prime with POLYQuik® POLYPRIME or other WVCO approved primer. Contact WVCO for more details about appropriate primer selection.
2. Refer to the primer Technical Data Sheet and the [POLYQuik Primers Installation Guideline](#) for detailed primer application instructions.

PROCESSING:

1. FastPatch 5400 kits are designed to be applied as provided to yield the typical properties described in this TDS. Adding additional materials to or misapplying the kits will result in non-typical physical properties.
2. Whenever possible, condition all FastPatch 5400 components (resin pail and iso pouch) to 70°F (21°C) before application.
3. At ambient temperatures ≤40°F (5°C), FastPatch 5400 components may be conditioned to 100°F (38°C) to aid in cure speed.
4. Kits are designed for single use. **Do not subdivide.**
5. Use 'eggbeater' style mixer with a drill capable of ≥400 RPM.
6. Tear open and add "Part A ISO" pouch to the resin pail. Mix for 2 minutes.
7. Add 23-25 lbs, or approximately half a bag of FastPatch Aggregate, to the pail and mix until well combined, or about 1 minute.
8. Stop mixing and scrape the sides and bottom of pail, resume mixing for an additional minute.
9. After kit is uniformly well mixed, pour FastPatch 5400 into the installation area.
10. It is the responsibility of the installer to determine the most appropriate application method for the specific work project parameters. WVCO recommends honoring all joints in the substrates adhered to. FastPatch 5400 has some small percentage of curing shrinkage based on the total dimensions of any continuous pour. Contact your WVCO representative for more details on recommended installation procedures and practices

NOTE: FastPatch 5400 surface may discolor with UV exposure. UV discoloration does not impact any aspect of material performance.

HEALTH AND SAFETY

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

DISCLAIMER OF WARRANTY

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