## Technical Data Sheet



## Distributed by:

**PRP Company** 

832.786.8501

## **PERFORMANCE PRODUCTS**

Partnering through service, innovation, and integrity

# POLYQuik<sup>®</sup> FastPatch 5000

## **Flexible Spall Repair**

## DESCRIPTION

FastPatch 5000 is a flexible, twoomponent urethane designed to be a fast curing repair product for concrete. It is a 100% solids product supplied in ready-to-use cartridges. FastPatch CT has excellent adhesion to concrete. Repaired areas can be opened to traffic in as little as an hour. FastPatch CT can be meter applied, contact Willamette Valley Co. for more details.

## WHERE TO USE

- Roadways-fill voids or patch defects
- Parking Lots-repair damaged areas
- Warehouses-transitions or spalls
- Sidewalks-broken or damaged areas

## FEATURES AND BENEFITS

- Easy to Use- anyone can apply it
- Fast Curing-reopen to traffic quickly
- Flexible-absorbs impact and stress
- Excellent Adhesion-restores damaged areas

## PACKAGING 300x300 mL Cartridge

**COLORS** Gray

\*\*\*Bulk options available contact your Willamette Valley Co. representative for details\*\*\*

**YIELD** 300x300 mL cartridge = 0.16 gal (37in<sup>3</sup>) With gravel = 0.3 gal (69.2in<sup>3</sup>)

**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  $90^{\circ}$  F (15 to  $32^{\circ}$  C).

## **TECHNICAL INFORMATION**

## **Typical Properties**

· / P · · · - P · · ·	
VOC, Ibs/gal (g/L), ASTM D 2369	0
Viscosity, cps, ASTM D 4878, mixed	1,350
Service temperature, ° F (° C)	-30 to 170 (-34 to 77)
Gel time, ASTM D2240, 70°F (21°C), minutes	6
Set time, min., 70° F (21° C)	10
Tack-free time, min., 70° F (21° C)	20
Hardness, Shore A, ASTM D 2240	80
Concrete adhesion, psi (MPa), ASTM D 4541	510 (3.5) primed

#### **Processing Parameters**

Ratio by volume	1 to 1
Application temp, ° F (° C)	38 to 100 (10 to 37)
Application method	Pneumatic or Battery Operated Dispenser
Recommended repair size	Less than 9.0 ft <sup>2</sup> (0.84m <sup>2</sup> )

#### APPLICATION

APPLICATION

size

nut over the mix-tube.

2.

3.

4

5.

6.

7.

8.

9.

cm).

cartridge.

Temp. °F (°C)

100 (37)

70 (21.1)

50 (10)

\*\*\*METER PROCESSING\*\*\*

**CLEANING & MAINTENANCE** 

1. Use a 1-to-1 pneumatic or battery powered dispenser (maximum

Remove the retaining nut and caps from the cartridge.

Keep cartridge upright and load into applicator gun.

Keep the cartridge upright during assembly.

tube to remove any air trapped in cartridges.

(20-40mL) outside the repair area.

of 80 psi) and ensure that the pneumatic dispenser is the proper

Place mix-tube on cartridge nozzle and hand tighten the retaining

While pointing cartridge upward, trigger handle and fill the mix

Point cartridge over waste container and dispense initial material

Dispense FASTPATCH on the walls and ENTIRE floor of spall area.

Place gravel in spall below surrounding surface by 0.25 inches (0.60

dispense until FASTPATCH floats on the gravel. Move the mixing

tube to higher elevation while dispensing until the entire spall is

flooded with FASTPATCH. Avoid triggering on and off during repair.

NOTE: Application of cartridge must be performed continuously.

Stopping before the cartridge is completely dispensed may result

in the material setting up in the mix tube. Partially used

cartridges may be reused by placing a new mix-tube on top of the

Gel Time (min.)

3

6

10

Contact The Willamette Valley Co. representative for more details.

Clean equipment with POLYQuik® Cleaner or acetone immediately

after use. Cured material must be removed mechanically.

Set Time (min.)

5

10

25

TABLE 1: Effect of temperature on gel time and set time.

10. Insert mixing nozzle in the lowest elevation of the gravel and

11. Use a plastic trowel to level FASTPATCH 0.25 inch (0.60 cm) below

surrounding surface until it cures. Avoid overfilling spall area.

12. Add topping sand to refusal as necessary after the material gels.

#### SURFACE PREPARATION

CONCRETE

- The concrete surface being repaired must be fully cured 28 days, structurally sound (200psi or greater according to ASTM D7234), clean (ASTM D4258), and dry (less than 5%, ASTM E1907).
- Concrete surface must be dry and clean. Water or oil present can result in poor adhesion. Apply product only if surface temperature is 5° F (3° C) above the dew point to avoid application over damp surface.
- 3. Remove any contaminants before profiling surface.
- It is recommended to profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting.
- 5. Saw cut spall area in shape of a square 1-3 inches (2.54-7.6 cm) deep, hammer (15 lb) spall area and remove debris. Recommended repair size is less than 9 ft<sup>2</sup> (0.84m<sup>2</sup>).
- 6. 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 in this area.
- Use a steel bristle brush to remove dirt on vertical and horizontal concrete surfaces and use compressed air to blow out prior to applying product.
- 8. As necessary, plug all gaps or joints surrounding the spall area with foam backer rod and choose a rod width that fits tightly in the area.
- Priming all concrete surfaces is recommended. Prime with POLYPrime or POLYQuik<sup>®</sup> IK Primer. Contact WVCO for proper primer selection. Refer to primer TDS sheets for detailed instructions.
- 10.For spall areas, honor all joints or moving cracks in the spall area by sawcutting after FASTPATCH has cured.

#### OTHER MATERIALS

- Previously installed polymer materials must be tested to determine the best method of preparation to achieve acceptable adhesion. Consult manufacturer for recommendations. Typically, methods will include solvent cleaning, abrading, and vacuuming surface.
- 2. FASTPATCH is not typically recommended for use in asphaltic roadways. Exceptions do occur; contact Willamette Valley Co. for more details.
- Avoid placing FASTPATCH on asphaltic materials, bare ground, dirt, grass or other non-structural surfaces.

#### **GRAVEL INFORMATION**

- 1. Use recommended FASTPATCH Gravel for applications. Gravel may be purchased from multiple sources. Suitability must be determined by the End User. Contact WVCO for recommended tests and evaluation procedures or for gravel approval. Gravel should be approximately 3/8" round rock that is washed and dried. Sourced gravel should have Mohs scale hardness:  $\geq 5$ .
- 2. Gravel makes up 40-50% of the repair volume.
- 3. Typically 10-lbs (4.5-kg) of gravel is required per 750x750mL cartridge or 4-lbs (1.8-kg) per 300x300mL cartridge.
- Gravel can be approved by WVCO. Contact WVCO for gravel testing and approval.

#### **CARTRIDGE PROCESSING**

- 1. Precondition the cartridge to 70°F (21°C) before use. Gravel must be dry and relatively free of dust.
- Use a 32-element 13-mm diameter static mix tube with a pneumatic or battery powered gun. Hand pumping is not recommended due to the increased chances of poor mixing. Contact supplier for further instructions if hand pumping is required.
- Cartridges and gravel can be heated up to 100°F (38°C) to speed cure at colder temperatures. It is recommended to heat all componenets when the temperature is below 50°F (10°C).
- 4. Check that primed surfaces are ready for application of FASTPATCH before applying mixed material.

#### **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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PROPER APPLICATION IS THE RESPONSILBITY OF THE USER. AS WITH ANY PRODUCT THE USE OF THE THIS PRODUCT IN A GIVEN APPLICATION MUST BE TESTED (INCLUDING BUT NOT LIMITED TO FIELD TESTING) IN ADVANCE BY THE USER TO DETERMINE SUITIBILITY. TESTING IS THE REQUIREMENT OF BOTH ENGINEERS AND CONTRACTORS ALIKE. WVCO DOES NOT WARRANT THE APPLICATION UNDER ANY OR ALL CIRCUMSTANCES.

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Revision Date: March 2013