

# Technical Data Sheet



Willamette Valley Company

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Partnering through service,  
innovation, and integrity

# POLYQuik® P-200

## Fast-setting Polyurea Coating

### DESCRIPTION

POLYQuik® P-200 is a two-component, aromatic, sprayable, polyurea, elastomeric coating. It is used as a chemical-resistant, waterproof, protective coating for both vertical and horizontal surfaces. It is resistant to corrosion and many chemicals, including hydrogen sulfide, acids and hydrocarbon solvents. Use POLYQuik® P-200 where regular thermal or dynamic movement is expected.

### WHERE TO USE

- **Primary and Secondary Containment**
- **Waterproofing**—above or below grade
- **Wastewater**—meets requirements of LA County
- **Protective Coatings**—for concrete, wood, metal

### FEATURES AND BENEFITS

- **Superior properties**—excellent crack-bridging
- **Two-component cure**—sets in seconds
- **Serviceable within 1 hour**—reduces facility downtime
- **Excellent chemical resistance**

### PACKAGING

50-gal. drums (189 L)

### COLOR

Black, Tan

\*More colors and packaging options may be available. Contact your WVCO representative and refer to the color palate for more information.

### YIELD

50-gallon drum set (100 gal total) = 13.36 ft<sup>3</sup>

Sprayed Yield\*: 26 ft<sup>2</sup> per gal or 3.8 gal per 100 ft<sup>2</sup> at 60 mil DFT (0.63 m<sup>2</sup> per L at 1.5 mm DFT)

\*assumes 100% transfer

### 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

<b>VOC</b> , lbs/gal (g/L), ASTM D 2369	0
<b>Viscosity</b> , cps, ASTM D 4878, resin and iso	700 / 500
<b>Service temperature</b> , ° F (° C)	-26 to 300 (-32 to
<b>Gel time</b> , sec	4
<b>Tack-free time</b> , sec	20
<b>Tensile*</b> psi (MPa), ASTM D 412	2,500 (17)
<b>Elongation*</b> %, ASTM D 412	200
<b>Hardness</b> , Shore D, ASTM D 2240	50
<b>Tear*</b> pli (kN/m), ASTM D 1938	173 (30)
<b>Tear(Die C)*</b> pli (kN/m), ASTM D 624	427 (75)
<b>Abrasion resistance</b> mg lost, CS17 wheel, 1kg, 1k cycles, ASTM D 4060	8
<b>Concrete adhesion</b> , psi (MPa), ASTM D 4541	350 (2.4)
<b>Crack bridging</b> , 1/8" at 60 mils, ASTM C 836	Pass
<b>UV resistance</b> , ASTM G 53, UV313B, 7,000 hrs.	Pass

\*Properties achieved using specific dispensing equipment – Contact WVCO for more information.

### Processing Parameters

<b>Ratio by volume</b>	1 to 1
<b>Application temp.</b> , ° F (° C)	35° to 120° (2° to 49°)
<b>Recommended thick.</b> , mils (mm)	20 to 125 (0.5 to 3.0)
<b>Meter equipment</b>	Heated Plural Component (30 Mesh Y-Strainer Screens)
<b>Gun requirement</b>	Impingement (40 Mesh Screens)
<b>Spray pressure</b> , psi (MPa)	2,000 to 3,000 (13.6 to 20.4)
<b>Spray temperature</b> , primary heaters and hose, °F (° C)	150° to 180° (65° to 82°)

## APPLICATION

### SURFACE PREPARATION

#### WOOD

1. Store wood in a covered, dry location, and protect surface from damage and contamination.
2. For a completely uniform appearance in the finished product, fill all voids, spaces, or damaged areas prior to coating. Repair or fill areas with POLYQuik® HPU-FILLER or other suitable filler. Contact WVCO representative for filler options and technical recommendations. Remove any excess filler by sanding until level with surrounding area.
3. Priming may be required: prime with POLYQuik Epoxy Primer, PolyPrime, or other suitable primer. Contact WVCO representative for primer options and technical recommendations. Refer to primer technical data sheet for application and cure time information.
4. Ensure wood surface is smooth and dry prior to applying POLYQuik® P-200. Surface must have at least a 36-120-grit surface and less than 10% surface moisture. Humidity levels greater than 85% and surface moisture greater than 10% will create blisters between the coating and wood surface.
5. Apply POLYQuik® P-200 in two 15-20 mils (0.3-0.5 mm) coats in crosshatch pattern and allow to cure for 2-3 minutes. Repeat this application until desired thickness is achieved.

#### CONCRETE

1. Priming is required; prime with POLYQuik Epoxy Primer, PolyPrime, or other suitable primer. Contact WVCO representative for primer options and technical recommendations. Refer to primer technical data sheet for application and cure time information.
2. The surface being coated must be fully cured (28 days minimum), structurally sound (200 psi or greater tensile strength according to ASTM D 7234), clean (ASTM D 4258), and dry (less than 5% surface moisture, ASTM E 1907 and D4263).
3. The surface must have low moisture vapor transmission (less than 3 lb/24 hr/1000 ft<sup>2</sup>, RMA Test Method).
4. Do not apply over concrete if vapor barrier is not present or unknown.
5. Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydroblasting. Remove contaminants before blasting.
6. Fill all voids and cracks between 0.06-0.50" (1.5-12.5 mm) with POLYQuik® HPU Filler or other suitable filler. Contact WVCO representative for filler options and technical recommendations.

#### STEEL & OTHER METALS

1. Steel and other metal surfaces must be cleaned before blasting according to SSPC-SP1. Remove any sharp edges, weld splatters and other surface imperfections.
2. Blast according to SSPC-SP10 / NACE No. 2 Near White standard (0.003" (0.08 mm) profile).
3. Test the surface for non-visible soluble salt contamination according to NACE 6G186. If necessary treat the surface with CHLOR\*RID or equivalent chloride remover until less than 3mg/cm<sup>2</sup> is detected.
4. PRIMING STEEL OR OTHER METALS – Apply POLYQuik® Epoxy Primer or PolyPrime only if metal surface temperature is 5° F (3°C) above the dew point to avoid application over damp surface. Refer to primer technical data sheet for application and cure time information. Other primers may also be used. Do not use without contacting your WVCO Representative for approval.
5. For aluminum and galvanized metals, contact your WVCO Representative for additional information.

### PROCESSING

1. Precondition material to at least 70°F (21°C) for 24 hours. Secure an air driven mixer with 3 folding blades in the center bung hole of the drum. Air driven mixer blade configuration: 8" blade - bottom, 6" blade - middle, and a 6" blade - top. Ensure the mixer is spinning clockwise at a speed adequate enough to thoroughly mix the resin. Mix for 30 minutes before spraying. Repeat above mixing instructions after every 4 hours of operation. Avoid mixing for more than 30 minutes as air may become entrapped in the resin. Mixers are available through WVCO Precision Technologies.
2. P-200 must be sprayed with a high pressure plural-component proportioner. Contact WVCO representative for plural component proportioner recommendations and configurations. Proportioner should be able to heat resin and iso to 150-180°F (65-82°C).
3. Proportioner must generate a minimum spray pressure of 2,000 psi (13.8 MPa), maintain a stable pressure during spray and keep minimal pressure differential between resin and iso – no more than 300 psi – during application.
4. Contact WVCO representative for high and low output application equipment. Equivalent applicator setups from other manufacturers are available. CAUTION: APPLICATOR OUTPUT MUST NOT EXCEED 75% OF METER OUTPUT.

### APPLICATION

1. When priming, prime according to Surface Preparation guidelines. Refer to primer technical data sheet for application and cure time information.
2. Avoid blisters and poor adhesion by not applying coating when the humidity is above 85%. Apply the coating when the substrate temperature is stable or dropping. Minimize out-gassing and pinholes on concrete with primers, and with multiple thin applications of coating (10 mils or less per pass) on wood.
3. Clean surface of contaminants (i.e. dust, dirt). Surface may be blown with dry compressed air or tack cloth.
4. Spray P-200 in a consistent sweeping pattern, 15-20 mils per pass as a general guideline and maintaining a consistent distance from the substrate. ALWAYS START AND STOP SPRAYING OFF TARGET TO AVOID BLISTERING.
5. Apply a texture coat over the surface to create a uniform appearance.
6. Recoat without surface preparation is possible within 12 hours of application at 70°F (21°C). After 12 hours, mechanically abrade the surface and clean with acetone or POLYQuik® Cleaner within 1 hour of recoat. Topcoat within one hour of cleaning.
7. For color stability, aliphatic topcoats may be used. Contact WVCO representative for topcoat options and technical recommendations.

### CLEANING & MAINTENANCE

- Use POLYQuik® Cleaner to clean parts after every use. Do not immerse the equipment in Cleaner.
- CLEAN Y-STRAINERS REGULARLY.
- Contact WVCO representative for pump flushing and long term storage stability recommendations.

### NOTE

Proper application is the responsibility of the user. Field visits by WVCO Representative are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

## 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](mailto:msds@wilvaco.com).

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