Technical

Data Sheet

Willamette Valley Company

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Partnering through service, innovation, and integrity

POLYQuik® P-200

Fast-setting Polyurea Coating with Excellent Properties

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

10 gallon (37.9 L) kits
100 gallon (379 L) kits

COLORS

Black, Gray, Tan

YIELD

26 sq.ft per gal. at 60 mils or 3.8 gal. per 100 sq.ft. (0.63 sq.m. per liter)

SHELF LIFE

1 year(s) 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	0
Viscosity, cps, ASTM D 4878, Part A / Part B	700 / 500
Service temperature, ° F (° C)	-26 to 300 (-32 to 150)
Gel time, sec	4
Tack-free time, sec	20
Tensile, psi (MPa), ASTM D 412	2,500 (17)
Elongation, %, ASTM D 412	200
Hardness, Shore D, ASTM D 2240	50
Tear, pli (kN/m), ASTM D 1938	173 (30)
Tear (Die C), pli (kN/m), ASTM D 624	427 (75)
Abrasion resistance, mg lost; CS17 wheel, 1kg, 1k cycles, ASTM C 957	8
Concrete adhesion, psi (MPa), ASTM D 4541	350 (2.4)
Crack bridging, 1/8" at 60 mils, ASTM C 836	Pass
UV resistance, ASTM G 53, UV313B, 7,000 hrs.	Pass

Processing Parameters

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

APPLICATION

SURFACE PREPARATION

CONCRETE

1. The surface being coated must be fully cured 28 days, structurally sound (200 psi or greater according to ASTM D 4541), clean (ASTM D 4258), and dry (less than 5% surface moisture, ASTM E1907and D4263).
2. The surface must have low moisture-vapor transmission (less than 3 lb/24 hr/1,000 ft2, RMA Test Method).
3. Do not apply over concrete if vapor barrier is not present or unknown.
4. Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydroblasting. Remove contaminants before blasting.
5. Fill all voids and cracks between 0.06-0.50" (1.5-12.5mm) with POLYQuik® HPU-FILLER.

STEEL & OTHER METALS

1. Steel surfaces must be cleaned before blasting (SSPC-SP1). Remove any sharp edges and other surface imperfections
2. Dry abrasive blast surface according to SSPCSP-10/NACE No. 2 (0.003" profile).
3. Remove any non-visible soluble salt contamination (less than 3 mg/cm2, NACE 6G186, CHLOR*RID).
4. Apply POLYQuik® primer and coating only if steel surface temperature is 5° F (3° C) above the dew point to avoid application over damp surface.
5. Apply POLYQuik® primer and coating within the same day and before the prepared steel surface is chemically contaminated and before rusting reoccurs.
6. For aluminum and galvanized metals, contact your WVCO Representative for additional information.

PROCESSING

1. Precondition material to at least 70° F (21° C) 24 hours and thoroughly mix Part B for at least 30 minutes before proportioning begins. Use a mixer fitted with blades that are 1/3 the diameter of the container to redistribute any settled material.
2. POLYQuik® P-200 must be sprayed with a plural-component GRACO H20/35, REACTOR™ E-XP2, or equivalent proportioner. Proportioner should be able to heat Part A and Part B to 150 – 180° F (65 – 82° C).
3. Proportioner must generate a minimum spray pressure of 2,000 psi (13.8 MPa) and maintain a stable pressure differential between Part A and Part B during application.
4. For high output applications, use a GRACO Fusion AP AR4242, GX7-400 with a 453 modules & 212PCD. For moderate-to-low output applications use Fusion AW3333/AW3939 (40-mesh screen) or GX-8 (60-mesh screen) gun. CAUTION: SPRAY GUN OUTPUT MUST NOT EXCEED 75% OF METER OUTPUT. Contact your WVCO Representative for additional information on equipment.

APPLICATION

1. Priming is required. Use POLYQuik® PolyPrime or POLYQuik® Epoxy Primer. Refer to primer technical data sheet for application and cure time information.
2. Wear protective gloves, safety glasses, respirators, and clothing while handling POLYQuik® P-200. Make certain the most current versions of product data sheet and MSDS are being used.
3. Avoid blisters and poor adhesion by not applying coating when the temperature is within 5° F (3° C) of the dewpoint or the humidity is above 85%. Apply the coating when the substrate temperature is stable or dropping. Minimize outgassing and pinholes with primers, multiple thin applications of coating (less than 0.010" per coating layer).
4. POLYQuik® P-200 color will discolor or fade under UV light; however physical and performance properties will not be affected. For color stability, use POLYQuik® P-540 as a topcoat.
5. Spray POLYQuik® P-200 in a consistent sweeping pattern 15 – 20 mils per pass and maintaining a consistent distance from the substrate. ALWAYS START/STOP SPRAYING OFF TARGET, OTHERWISE BLISTERS MAY FORM.
6. Recoat within 12 hours of application at 70° F (21° C). After 12 hours, mechanically abrade the surface and clean it with acetone or POLYQuik® Gun Cleaner before reapplying within 1 hour.
7. 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.

CLEANING & MAINTENANCE

- Use POLYQuik® Cleaner to clean guns and parts after every use. Do not immerse gun in POLYQuik® Cleaner.
- CLEAN Y-STRAINERS REGULARLY. INSPECT Throat Seal Liquid (TSL) DAILY & REPLACE EVERY MONTH.
- Flush the metering equipment with POLYQuik® Pump Lube and replace Pump Lube when cloudy.

HEALTH AND SAFETY

Willamette Valley Company recommends reading and becoming familiar with the MSDS before using this product.

Part A contains methylene bisphenyl diisocyanate, diphenylmethane diisocyanate, and diphenylmethane diisocyanate prepolymer.
Part B contains glyceryl poly(oxypropylene) triamine, diethyltoluene-diamine, and poly(oxypropylene)diamine.

DISCLAIMER OF WARRANTY
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