

**Technical  
Data Sheet**



Willamette Valley Company

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Partnering through service,  
innovation, and integrity

# POLYQuik® Tri-Polyprime

## Primer for Concrete and Steel Substrates

### DESCRIPTION

POLYQuik® Tri-Polyprime is a two-component primer reduced with acetone for bonding elastomeric coatings to concrete and steel. It can be applied by roller or brush. It is used to create a strong bond between the substrate and topcoat, as well as help reduce the number of pinholes on porous substrates.

### WHERE TO USE

- **Walls & Floors**—concrete and steel
- **Under Coatings**—polyurea, polyurethane, epoxy
- **Porous Substrates**—prepared concrete
- **Low Temperature Applications**—cures on cold substrates

### FEATURES AND BENEFITS

- **Superior Adhesion**—steel and concrete
- **Two-Component**—topcoat after 1 hour
- **Minimizes Pinholes**—seals surface and promotes adhesion
- **Easy to Apply**—brush, roller, squeegee

### PACKAGING

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

### COLORS

Red

### YIELD

300 sq.ft. per gallon at 4 mils  
(7.5 sq. m. per liter at 0.1 mm)

### 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

<b>VOC</b> , lbs/gal (g/L), ASTM D 2369	0
<b>Viscosity</b> , cps, ASTM D 4878, Part A / Part B	200 / 310
<b>Service temperature</b> , ° F (° C)	-22 to 135 (-30 to 57)
<b>Potlife</b> , hours, with acetone & lid on container	2
<b>Ready for topcoat</b> , hours	1 to 6 (see Cure Time chart)
<b>Concrete adhesion</b> , psi (MPa), ASTM D 4541	500 (3.4) 100% substrate
<b>Adhesion to steel</b> , lbf/in (kN/m), ASTM D 903	30 (5.2) 100% cohesive

### Cure Time

Temperature, 50% RH	Ready for topcoat	Max. Recoat time
25° F (-4° C)	6 hours	24 hours
70° F (21° C)	1.5 hours	8 – 12 hours (same day)
90° F (32° C)	1 hour	8 – 12 hours (same day)

### Processing Parameters

<b>Ratio by volume</b>	1 to 1 (add 1 part acetone)
<b>Application temp</b> , ° F (° C)	25 to 90 (-4 to 32)
<b>Recommended thick.</b> , mils (mm)	1 to 4 (0.025 to 0.10)
<b>Application method</b>	Brush, roller, or squeegee

## 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%, ASTM E-1907 and D 4263). PRIMER WILL FOAM IF MOISTURE IS GREATER THAN 5%.
2. The surface must have low moisture-vapor transmission (less than 3 lb/24 hr/1,000 ft<sup>2</sup>, RMA Test Method).
3. Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydroblasting. Remove contaminants before blasting.
4. Fill all voids and cracks between 0.06-0.50" (1.5-12.5 mm) with POLYQuik® HPU-FILLER to achieve a uniform application of primer.

#### 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 SSPC-SP-10/NACE No. 2 (0.003" profile). Remove any non-visible soluble salt contamination (less than 3 µg/cm<sup>2</sup>, NACE 6G186, CHLOR\*RID).
3. Apply coating only if steel surface temperature is 5° F (3° C) above the dew point to avoid application over damp surface.
4. Apply primer and coating within the same day and before the prepared steel surface is chemically contaminated and before rusting reoccurs.
5. For aluminum and galvanized metals, contact your WVCO Representative for additional information.

### PROCESSING

1. Part B must be mixed in its original container before Part A and Part B are combined. Attach to a drill, a clean mixing blade 1/3 the diameter of mixing container. If the blade is contaminated, clean it with acetone. Do not use isopropyl alcohol or any other alcohol-based products. Slowly mix Part B for 2 to 3 minutes.
2. When working with acetone for mixing and cleaning purposes, work area should be free from sparks, flames, smoking, and other sources of ignition. Choose a work area that is shaded and away from direct sunlight.
3. Use marked containers to measure exact volumes of Part A and Part B. Choose a final volume that can be easily applied within 10 minutes.

#### RECOMMENDED MIX VOLUMES

Final Volume	Mixing Container	Part A	Part B	Acetone
¾ gal (2.8L)	1 gal (3.7L)	1 qt (1L)	1 qt (1L)	1 qt (1L)
3 gal (11.3L)	5 gal (19L)	1 qt (1L)	1 qt (1L)	1 qt (1L)

4. Pour equal volumes of Part A, Part B, and acetone in separate containers. Mixing containers must be clean and dry. Do not use containers contaminated with water or other liquids.

5. If using a mechanical drill and mixing paddle, ensure that equipment is properly grounded. If grounding is not possible, use a paint stick or other non-mechanical method to mix all 3 parts.
6. Combine Part B and acetone in a mixing container and mix for 1 minute. Add Part A to the Part B and acetone mixture and mix for 1 to 2 minutes and scrape the container sides while mixing.
7. Keep mixing container covered while primer is not being used.

### APPLICATION

1. Apply POLYQuik® Tri-Polyprime no more than 4 wet mils (0.1 mm) per application. PRIMER WILL FOAM AND ADHESIVE FAILURE WILL OCCUR WHEN APPLIED GREATER THAN 4 MILS. Make sure primer does not puddle or build up in bugholes, crevices, or joints.
2. Before priming, protect adjacent surfaces with tape or other kinds of protective barriers.
3. Begin priming only if the polyurea topcoat or joint sealant can be applied before exposure to rain or the formation of dew.
4. Concrete is a porous material that contains air. When the temperature of the concrete rises, the air expands. This phenomenon, outgassing, may produce pinholes or blisters in primers and polyurea coating systems. To reduce the risk of pinholes from outgassing, apply POLYQuik® Tri-Polyprime and the coating when the concrete temperature is stable or dropping.

#### BRUSH, ROLLER, OR SQUEEGEE

1. This method is recommended for joints, detail priming, or large flat areas. Use a solvent-resistant brush small enough to reach into joint faces. For convenience, brushes can be attached to a rod and used as the applicator stands.
2. Use a 1/2" (12.5 mm) nap roller, ensuring no puddles while applying primer. Apply primer in multiple directions to ensure full coverage.
3. PRIOR TO APPLYING TOPCOAT, REMOVE BY SCRAPING EXCESS PRIMER OR PRIMER THAT HAS FOAMED.
4. 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.
5. Topcoats must be applied before primer becomes contaminated with rain, debris, oil, or other foreign materials. If topcoat time is exceeded, mechanically remove primer and re-prime area

### CLEANING & MAINTENANCE

- Clean equipment with POLYQuik® Cleaner or acetone immediately after use. Cured material must be removed mechanically.

## HEALTH AND SAFETY

Willamette Valley Company recommends reading and becoming familiar with the Material Safety Data Sheet before using this product.

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Revision Date: 2010 February