Technical

Data Sheet



The Willamette Valley Company LLC www.wilvaco.com

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Partnering through service, innovation, and integrity

POLYQuik® VX series

Color Stable Aliphatic Polyaspartic Coatings

DESCRIPTION

The VX series include two-component, aliphatic, color-stable polyaspartic systems designed as floor coatings or top coats for other repairs. It has excellent outdoor weathering characteristics and outstanding impact and abrasion resistance. It cures quickly for rapid return-to-service and for same day application of multiple coats. VX systems can be applied by roller or brush.

WHERE TO USE

- · Floor coating—smooth or with aggregate broadcast
- Topcoat—apply for color stability
- Protective coating—concrete, wood
- Walkway surfaces—slip-resistant with aggregate

FEATURES AND BENEFITS

- Color stable—excellent weathering resistance
- Fast cure time—quick return-to-service
- Flexible & tough—scratch and impact resistant
- Easy to apply—roller, brush

PACKAGING

COLOR

4-gal kits (15.1 L) 50-gal drum (189 L) Clear, Gray

YIELD

360 ft² per gal at 6 mils (6.4 m² per liter at 0.15 mm)

SHELF LIFE

6 months when properly stored.

STORAGE

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

TECHNICAL INFORMATION

Typical Properties	VX21 Clear	VX21 Gray	VX41 Gray	ASTM
Working time, min., 70°F (21°C)	15	15	10	-
Tack-free time, min., 70°F (21°C)	90	90	60	-
VOC, lbs/gal (g/L)	0	0	0	D 2369
Hardness, Shore D	65-70	65-70	60	D 2240
Abrasion resistance, mg/1000 cycles, CS-17	40	100	150	D 4060
Viscosity (mixed), cP	400	900	1500	D 4878

Processing Parameters	VX21 Clear	VX21 Gray	VX41 Gray	
Mix ratio by volume, resin:iso	2:1	2:1	4:1	
Application temp, °F (°C)	20 to 110 (6 to 43)			
Recommended thickness, mils (mm)	6 to 12 (0.15 to 0.3)			

Cure Time			
Surface temp.	Minimum recoat time,	Maximum recoat time,	Potlife
50% RH, °F (°C)	hours	hours	(with lid on mixing container)
32 (0)	8	36	
50 (10)	4	24	10-15 minutes
77 (21)	2	24	
100 (38)	1	24	

APPLICATION INSTRUCTIONS

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 priming. Repair or fill areas with FastPatch or other suitable filler. Contact WVCO representative for filler options and technical recommendations. Remove any excess filler by sanding until level with surrounding

Ensure wood surface is smooth and dry. Surface must have a 36-120-grit surface and less than 10% surface moisture

Priming is recommended: Prime with POLYQuik® Epoxy Primer, PolyPrime, FastPatch Healer Sealer, 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.

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- 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 E1907 and D4263).
- 3. The surface must have low moisture-vapor transmission (less than 3 lb/24 hr/1.000 ft2. RMA Test Method).
- 4. Do not apply over concrete if vapor barrier is not present or unknown.
- Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydroblasting. Remove contaminants before blasting.
- Fill all voids and cracks between 0.06-0.50" (1.5-12.5mm) with FastPatch or other suitable filler to ensure floor is level to appropriate elevation. Contact WVCO representative for filler options and recommendations.
- To achieve a smooth floor, apply a level coat of Primer, then topcoat applying VX Product as a topcoat.
 COATINGS with VX Product. Follow the appropriate recoat guidelines when

- Spray elastomer coating must be less than 12 hours old for POLYQuik® VX products to adhere without preparing the coating
- surface.

 2. If 12 hours have passed since the spray elastomer coating

 1. should surface and clean with Acetone application, mechanically abrade surface and clean with Acetone or POLYQuik® Cleaner.
- 3. Allow cleaned surface to dry and immediately apply POLYQuik®

STEEL & OTHER METALS

- Steel and metal surfaces must be cleaned before blasting according to SSPC-SP1. Remove any sharp edges 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/cm²
- 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
- For aluminum and galvanized metals, contact your WVCO Representative for additional information.

PROCESSING

Condition resin and iso to approximately 70°F (21°C) for 24 hours before using.

- 2. Use a drill fitted with a blade approximately 1/3 the diameter of the container to redistribute any settled material.
- Use a clean mixing blade and mechanical mixer and mix the resin in its original container for 2-3 minutes at 100-200 RPM. Scrape bottom and sides of container and mix for an additional 60 seconds.
- 4. Protect surrounding surfaces of the application area. Protect substrate from direct sunlight to prevent sudden changes in substrate temperatures.

APPLICATION

- 1. Ensure surface is primed according to Surface Preparation guidelines.
- 2. Add the iso component into resin container. Combine the entire quantity of the kit and do not mix smaller volumes. Only mix the amount of kits that can easily be applied within 15 minutes. For temperatures between 5° F - 30° F (-15° C – 0° C), add 1 to 1½ pints (0.5-0.75 L) of dry Acetone to Part B and mix before combining with Part A
- 3. Mix for 60 seconds. Scrape the sides and bottom of the bucket with a wooden straight edge and continue to mix for an additional 60 seconds. All of the isocyanate must be thoroughly incorporated in the resin before adding it to the application area. THE MATERIAL WILL NOT SET IF IT IS IMPROPERLY MIXED. Signs of poor mixing include tacky material that does not harden
- Keep lid on the mixing container while product is not being used. Pour material onto substrate surface. Do not turn bucket over and
- allow to drain. Do not scrape last remaining material out of bucket. NOTE: Other techniques and methods can be used. It is the responsibility of the applicator to determine suitability and work flow. SQUEEGEE AND BACKROLL
- 1. Pour POLYQuik® VX in a long line and follow with a 1/8" serrated
- Use 1/4" nap mohair roller (9" or 18" wide) to back roll.
- Back roll perpendicular to squeegee line to remove puddles. POLYQuik® VX thickness should be 6 mils and no more than a maximum of 12 mils thick. Use a wet film gauge to check the thickness of the product. After product cures, remove any blisters that rise out of concrete pores.
- 5. Apply next coat only after the basecoat is hard and tack-free. Refer to recoat schedule.

ONE-COMPONENT PUMP

- 1., Use a solvent-resistant airless sprayer that can generate 1000 PSI (35:1 airless pump) and equipped with a reversible tip (e.g., 0.023 in).

 4. Purge pump with the product to flush residual material in the pump
- and hoses
- Spray product in a crosshatch manner to assure full coverage. FOR SLIP-RESISTANCE
- Spread POLYQuik® Epoxy Primer over the concrete surface with a 1/8" serrated squeegee and back roll until the product is spread. evenly. Cover the area with desired-mesh and color of sand till refusal (contact WVCO representative for sand information). Allow the product to cure 12-24 hours and remove excess sand. Spread POLYQuik® VX with a flat squeegee and back roll. Repeat as
- 2. POLYQuik® VX thickness should be 6 mils and no more than a maximum of 12 mils thick. Use a wet film gauge to check the thickness of the product. After product cures, remove any blisters that rise out of concrete pores.
- 3. Another method is to IMMEDIATELY and UNIFORMLY broadcast sand into the wet POLYQuik® VX and back roll.

CLEANING & MAINTENANCE

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

NOTE: Proper application is the responsibility of the user. Field visits by WVCO Representative are for the purpose of making technical THE WILLAMETTE VALLEY COMPANYLLC www.wilvaco.com info@wilvaco.com

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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.

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