POLYURETHANE 250 VOC

PRODUCT DESCRIPTION AND USE

Polyurethane 250 VOC is a two component, low viscosity acrylic urethane. It is used as a primer/sealer over a variety of surfaces. The use of special solvents and adhesion promoters gives this material excellent penetration and adhesion to minimally profiled concrete. Polyurethane 250 VOC is U.V. stable for use in exterior applications, cures rapidly and is easily recoated with both solvent-based and water-based polyurethanes. When used as a finish coat, this material gives a hard, high gloss surface that offers excellent stain resistance and easy cleanability. Compared to solvent-based acrylic sealers, Polyurethane 250 VOC offers substantial improvements in initial gloss, gloss retention and overall performance. Polyurethane 250 VOC is available in a satin finish if a lower gloss is desired.

Polyurethane 250 VOC has been designed for use over concrete, acid stained surfaces, and various types of architectural concrete. Its performance as a paver sealer is unexcelled. It is especially suitable over acid stained concrete because it is unaffected by pH drifts that can affect the adhesion of other types of primers. When used over acid stains or integrally colored concrete, it gives color enhancement similar to solvent acrylic sealers. Polyurethane 250 VOC can also be used as a tie coat over difficult to adhere to surfaces such as polyester urethane. When used as a finish coat in vehicle areas, it resists tire tracking and provides easy soil release. Although abrasion resistance to heavy foot traffic far exceeds single component materials, the best performance in these areas is achieved with polyester urethanes such as Polyurethane 100, Polyurethane 100 VOC or Polyurethane 501.

Chemical Composition

Acrylic oligomer crosslinked with aliphatic isocyanate. System modified with U.V. absorbers, hindered amine light stabilizers and a proprietary adhesion promoter.

Colors

Available in clear only.

Limitations

- Use over dense, minimally profiled surfaces requires machine scrubbing with a nylogrit type brush.
- Do not use solvent acrylic as a primer for Polyurethane 250 VOC.
- Applications heavier than 200 sq. ft. per gallon or puddling may result in solvent entrapment and possible blistering.
- Do not use the satin material over an unprimed surface.

WARRANTY INFORMATION

Arizona Polymer Flooring guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. ARIZONA POLYMER FLOORING MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Arizona Polymer Flooring shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Arizona Polymer Flooring shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

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TECHNICAL DATA

Physical Properties

Mixing Ratio, by Volume 2-1
Solids Content, by Weight 38%
Volatile Organic Compounds ..... 38 grams/liter
Pot Life (77 degrees) ..... 1 hour
Cure Time (77 degrees)
- Recoat ..... 90 minutes
- Light Traffic ..... 4 hours
- Vehicle Traffic ..... 3 days

Performance Properties

Gloss (60 degrees) 90
Hardness (Konig) 127
Flexibility (ASTM D-222) ..... passes 1/8 inch
Impact Resistance (ASTM D-2794) ..... passes 3/8 inch-pounds direct impact
Tabor Abrasion (1000 gm. Load, 1000 cycles, CS 17 wheel) ..... 69 mg. loss
Adhesion to Concrete (ASTM 451) ..... concrete fails before loss of bond

CHEMICAL AND STAIN RESISTANCE (ASTM D-1308 24 HOUR IMMERSION)

Coffee ..... no effect
Vegetable Oil ..... no effect
Mustard ..... no effect
Whiskey ..... no effect
Urine ..... no effect
Gasoline ..... no effect
Motor Oil ..... no effect
Brake Fluid ..... no effect
Transmission Fluid ..... no effect
Skydrol ..... no effect
Mineral Spirits ..... no effect
10% Sulphuric Acid ..... no effect
10% Hydrochloric Acid ..... no effect
10% Acetic Acid ..... no effect
Xylene ..... slight softening, film recovers
MEK ..... film destroyed

GENERAL INFORMATION

Moisture Vapor Emissions Precautions

All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings. APF can supply moisture remediation products. Consult our technical service department. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

Surface Preparation
Although Polyurethane 250 VOC has adhesion capabilities to challenging substrates, always profile the substrate as well as possible. Whenever possible acid etch the surface using a floor machine with a nylogrit brush. Follow the printed APF guidelines for surface preparation. If acid etching is not possible, clean the surface with a floor machine and nylogrit brush. Use APF Orange Clean, 1 part to 8 parts water. Do not let detergent residue dry on the concrete. Rinse well. Acid stained surfaces must be scrubbed with APF Super Base Neutralizer, 8 oz. to 4 gallons of water. Rinse well and allow to dry overnight.

Mixing Instructions
Mix only that amount of product that can be used in a two-hour period at 77°F. Higher temperatures reduce pot life. The combining ratio is 2 parts A to 1 part B. **Proportion the amounts carefully and mix for one full minute using a low speed drill, scraping the bottom and sides of the mixing vessel.** Avoid contamination with moisture. Reseal partially used containers completely after use.

Application Recommendations
Polyurethane 250 VOC may be applied by brush, roller, or airless sprayer. If rolling the material, use a ½ inch roller cover, work out of a 5 gallon pail or roller pan using the dip and roll method. Do not pour the material onto the floor. Because the material dries quickly, apply liberally and work small areas. Application rate should be 200-300 sq. ft. per gallon. Do not over-apply or allow to puddle as solvent entrapment may occur. **Do not use solvent acrylic sealers as a primer for this material.**

Recoating Guidelines
Polyurethane 250 VOC has an indefinite recoat window when being recoated with itself. If recoating with Polyurethane 100 and more than 24 hours has elapsed, reduce the material with approximately 15% acetone (1 pint acetone to 1 gallon of mixed material). If recoating the Polyurethane 250 VOC with Polyurethane 501 and more than 24 hours elapses, degloss the surface using a floor machine and a black janitor pad. Following these procedures will ensure good intercoat adhesion.

Handling Precautions
Material is flammable. Extinguish all flames, pilot lights and electric motors until all vapors are gone and the coating is hard. The vapor is harmful. Use only with adequate ventilation or appropriate cartridge type respirator. Avoid contact with skin, wear protective gloves. Read Material Safety Data Sheet before using.

Slip and Fall Precautions
OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Arizona Polymer Flooring recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Arizona Polymer Flooring or its sales agents will not be responsible for injury incurred in a slip and fall accident.