



APF TECHNICAL BULLETIN

Solvent Acrylic Sealers vs. Polyurethane 250

Solvent-born, single-component acrylic has been the most popular product for sealing architectural concrete for many year, as it possesses many benefits. The product dries quickly, is easy to apply, has good adhesion and is resistant to yellowing. It's also economical.

However, there's also a flip side to solvent acrylic sealers. They are low solids materials that leave very little "film build" on the surface in a typical two-coat application. This results in less substrate protection, gloss and overall durability. Solvent acrylic sealers wear very quickly in heavy foot traffic applications, give only moderate performance in vehicle areas and have relatively poor gloss retention in exterior applications.

Arizona Polymer Flooring has developed Polyurethane 250, a unique, two-component urethane that improves upon the performance of solvent acrylic sealers in every important area:

- Chemically crosslinked material is inherently superior to products that cure through solvent evaporation only.
- Provides wear resistance that is more than double that of solvent sealers.
- Moisture tolerance and resistance to whitening during and after cure is improved.
- Excellent adhesion to all cementitious substrates.
- Superior gloss, stain resistance and cleanability.
- Available in high gloss or satin.
- Fortified with a UV absorber package, giving it unequalled gloss retention in exterior applications.
- Like single component solvent sealers, it enhances the colors in decorative application

Although the price-per-gallon is usually more than solvent acrylic sealers, the solids content is 50% higher, giving higher film build and leaving the "real" price-per-gallon at only 32% higher. The following chart illustrates the differences between solvent acrylic sealers and Poly 250.

<u>Property</u>	<u>Solvent Acrylic</u>	<u>Polyurethane 250</u>
Curing Mechanism	Solvent evaporation	Chemical crosslinking
Solids Content	25% average	38%
Dry Film build (two coats applied at 300 sq. ft. per gallon per coat)	2.67 mils	4.06 mils
Gloss (60°)	72	90
Dry Times (77°F)	15-45 minutes	60-120 minutes
Tabor Wear (1000 gm. Load, 1000 cycles, CS-17 wheel)	175 mg. loss	69 mg. loss
Resistance to gasoline and brake fluid	Not resistant	Excellent Resistance
Price per gallon	\$25-\$30	\$50-\$60
Cost for 4 dry mils on 1,000 sq. ft job.	\$275	\$366

Available through Arizona Polymer Flooring's Super-Krete® Products division, Polyurethane 250 has proven itself in the field as both a primer and finish coat in various architectural concrete applications. Substituting Poly 250 for solvent sealers allows contractors to offer customers a superior sealer with significantly higher performance and overall value.