

Ply-Guard AS

Technical Bulletin

Ply-Guard AS is a fast-curing, two-component polyaspartic (aliphatic polyurea) coating system. Ply-Guard AS exhibits superior color and gloss retention, excellent abrasion resistance, good flexibility, and can be applied directly to properly prepared concrete or metal surfaces. In addition, Ply-Guard AS has very good corrosion, chemical, and UV resistance, and can achieve a uniform coating thickness of 2-8 mils DFT per coat that is free of bubbles and pinholes.

Key Features

- Fast-curing (40 minutes @ 77°F / 25°C)
- Low-Temperature cure (as low as -30°F / -34°C)
- Recoat time: 1 hour
- Walk-on Time: 1-2 hours
- Self-priming, excellent penetrating and bond strength
- Excellent abrasion, impact, and wear resistance
- Excellent color and gloss retention
- UV-resistant; optical clarity of clear sealer/finish
- Can add micro media agents to improve slip reduction
- VOC compliant or HAPS free
- Meets FDA/CFR, US Food Code, Physical Facilities criteria as outlined in 6.101.11 Surface Characteristics USDA acceptable
- Excellent resistance to chemicals and stains
- Skydrol resistant
- Random/incidental heat contact: tolerant to 300°F
- Low solvent odor
- Excellent Direct-To-Metal (DTM) coating – Passing 2,000 hours testing in salt-fog corrosion chamber (ASTM B117)
- Exceptional corrosion performance as a topcoat over Polyset WB HRZS® Primer on steel surfaces – Passing 13,000 hours in salt-fog corrosion chamber (ASTM B117)

Uses

Concrete Surfaces

- Commercial/Industrial Flooring - Three-coat system consisting of self-priming color primer/sealer followed by clear “bed” coat for accepting and wetting decorative flake chips (or other decorative media), followed by clear sealer/finish coat
- Final clear sealer/finish over decorative concrete surfaces such as acid, color or dye stained, semi-polished concrete, polymer-modified cementitious overlays, or seamless multi-build epoxy/color quartz flooring
- High foot traffic and vehicle/material-handling equipment areas
- UV-resistant sealer/finish coat over safety surfacing systems, outdoor running tracks, swimming pools, and patios

Steel surfaces

- Storage tanks
- Bridges
- Marine (ships, offshore rigs, barges, etc.)
- Railcars
- Pipelines

Surface Preparation

Concrete: Recommended surface profile is SP-2, Reference ICRI Technical Guideline No. 03732. This is best achieved with mechanical grinding machines using diamond heads achieving a final 50 to 120-grit profile.

Direct-To-Metal: All steel surfaces should be prepared to SSPC-SP10, Near-White finish with a minimum of 1.0 mil profile.

Please consult your Polyset Technical Representative for further recommendations

Mix Ratio

Parts by Volume: 1.0 part Base : 1.0 part Catalyst

Product Data (All readings taken at 77°F / 25°C, unless noted)

VOC Content (Lbs./gal.): 1.8

VOC Content (grams/Liter): 216

Also available in a Zero VOC formula

Flash Point: 102°F

Type of Material: Polyaspartic (Aliphatic Polyurea)

Color: Available in all Standard Colors

Finish: High-Gloss or Clear-High Gloss

Volume Solids (%): 72

Theoretical Estimated Coverage (ft²/gal.): 1155 @ 1 mil DFT

Recommended Film Thickness (mils/coat): 2–8 mils DFT

Method of Application: Spray, Brush, or Roll

Thinner & Clean-Up Solvent: Xylene or MEK

Pot Life: Approximately 30 minutes @ 77°F / 25°C

Drying Time 40 minutes @ 77°F / 25°C & 50% RH

Increased film thickness will take longer. Do not exceed 48 hours between coats.

Shelf Life: 1 year in the original, unopened containers

Storage: Store between 40–100°F

Store in a dry, covered area away from direct sunlight.

**FOR ADDITIONAL APPLICATION & EQUIPMENT RECOMMENDATIONS,
PLEASE CONSULT YOUR POLYSET TECHNICAL REPRESENTATIVE.**

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