



# POLYCOAT PRODUCTS

A Division of American Polymers Corp.

## POLYSEAL CR

Chemical Resistance Aliphatic Polyester Urethane System

### SYSTEM DESCRIPTION

The Polyseal CR system is a liquid applied, chemically-cured urethane system. The system utilizes an epoxy primer and two coats of aliphatic polyester urethane. Polyseal CR is resistant to chemicals, abrasion and weathering. It will not soften in moderate temperature nor embrittle in cold. The Polyseal CR system is a proven system for use in a wide range of applications.

### FEATURES

- ❖ Chemical Resistance
- ❖ Meets USDA Criteria
- ❖ Abrasion Resistant
- ❖ UV Resistant

### TYPICAL USES

Horizontal Concrete and Slabs in:

- ❖ Power Generating Plants
- ❖ Petrochemical Plants
- ❖ Pulp and Paper Industry
- ❖ Milling and Mining Industry
- ❖ Warehouse Floors
- ❖ Manufacturing Plants
- ❖ Aircraft Hangars

### SURFACE PREPARATION

Slabs should be structurally sound and fully cured a minimum of 28 days. Test slabs for vapor drive in accordance with ASTM D-4263.

Repair concrete and install Poly-Caulk® 80 for control joints according to the product data sheet or a Polyurethane joint sealant as necessary. Polyseal CR may crack if applied over an elastomeric joint sealant.

Warranties are issued only on slabs that are mechanically (i.e. shotblasting) profiled. Acid etching is not recommended. Remove all curing and parting compounds and other surface hardeners and coatings.

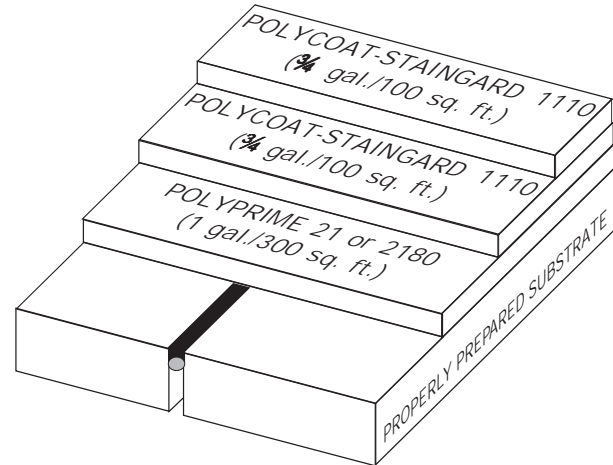
A test patch (4 ft. x 4 ft.) of Polyseal CR should be applied to ensure proper adhesion.

Prior to recoating an existing coating, prime the surface with Polyprime 21 or 2180 and prepare a test patch, as described above, to ensure proper adhesion.

### MIXING

Polycoat-Staingard 1110 has a limited pot life of 1-2 hours at normal temperatures (75°F [24°C] at 50% relative humidity). Complete all preparations before starting the mixing sequence.

Do not hand mix. Mix with a Jiffy Mixer and electric drill at a very low speed for 3 to 4 minutes until a homogenous mixture is achieved. Keep the blades submerged in the coating to avoid introducing air bubbles.



Atmospheric and slab temperatures must be between 60°F and 85°F during application. Always monitor atmospheric, slab and liquid temperatures when applying Polyseal CR. Lower temperatures will slow and warmer temperatures will accelerate the curing process and affect the pot life.

### APPLICATION

**Phase 1:** Check area of application to ensure that it conforms to the substrate requirements as stated in the general guideline section. Prime interior and exterior slabs with Polyprime 21 or 2180 using a phenolic core roller at a rate of 1 gallon/300 sq. ft. (0.14 liters/m<sup>2</sup>). Allow the primer to cure for 1 hour.

**Phase 2:** Apply Polycoat-Staingard 1110 Pigmented to the substrate at a rate of ¾ gallon/100 sq. ft. (0.31 liters/m<sup>2</sup>). For best results use a notched trowel, squeegee or phenolic core roller. Allow a minimum of 6 hours for surface to become tack free.

**Phase 3:** Apply a second coat of Polycoat-Staingard 1110 Pigmented or Clear at a rate of ¾ gallon/100 sq. ft. (0.31 liters/m<sup>2</sup>). Polycoat-Staingard 1110 Clear provides superior chemical resistance. Allow a minimum of 24 hours before foot traffic.

**Phase 4 (Optional):** Polycoat-Staingard 1110 is a high-performance coating and may become slippery when wet. Uniformly broadcast a washed, dry, rounded 40 to 90-mesh silica sand into the wet topcoat. Backroll to encapsulate and distribute the aggregate immediately after the first coat has dried. Or for greater ease in cleaning, apply a final finish coat within the recommended recoat time.

At 70°F and 50% relative humidity allow 72 hours of cure time before permitting heavy traffic on the finished system. Polyseal CR will cure completely in 7 days.

## LIMITATIONS

The following conditions must not be coated with the Polyseal CR system: below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool decks, swimming pools, magnesite, lightweight concrete, asphalt surfaces, asphalt overlays and where chained or studded tires may be used.

Concrete must exhibit 3000-psi minimum strength. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine hair brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

Polyseal CR should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade applications.

Uncured materials are sensitive to heat and moisture.

Concrete cleaning (see General Guidelines).

A continuous coating application should ensure no lines or streaks.

The substrate must be structurally sound and sloped for proper drainage.

Do not subject to continuous water immersion.

Do not use where moisture can reach the underside of the coating, or a vapor barrier may be required.

Field visits by Polycoat Products personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

## WARNING

The products in this system contain Isocyanates and Solvents.

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*Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Polycoat Products representative or visit our website for current technical data and instructions.*

### LIMITED WARRANTY

Polycoat Products warrants its products to be free of manufacturing defects and that they will meet Polycoat Products current published physical properties. Polycoat Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Polycoat Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Polycoat Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Polycoat Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Polycoat Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Polycoat Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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