

DESCRIPTION

PolySpec® CLAD Epoxy Underlayment is a 100% solids, two component, trowel applied epoxy mortar system. This product incorporates epoxy resin and properly graded aggregates to provide an easy to apply, functional underlayment that is compatible with virtually any finish flooring system. PolySpec® CLAD is listed on the Federal Government’s Qualified Products List (QPL) under MIL-D-3135, Type I, Class 2 and Type II, Class 2.

TYPICAL APPLICATION

Table with 2 columns: Component and Thickness. Rows include Primer (700/710 @ 5-7 mils), Body Coat (Clad @ 1/4 inch thickness), and Seal Coat (700/710 @ 10-12 mils).

PERFORMANCE DATA

Table listing performance metrics: Compressive Strength (10,900 psi), Adhesive Strength (500 psi), Moisture Absorption (15%), Impact Resistance (0.009" - No chipping), Indentation (Initial: 0.007" (6%), 24 hour residual 0.0% (0%)), Corrosion Resistance (No signs of corrosion), Shock Resistance (No signs of chipping), Oil Absorption (20%), Fire Resistance (Less than 4 inch char length), and Resistance to Elevated Temperatures (No flow, no slip).

STORAGE & INSTALLATION

Table listing storage and installation conditions: Storage Environment (Dry area, 65-80°F), Application Temperature (50-85°F), Service Temperature (Maximum 150°F), Shelf Life (12 months), Pot Life (30-45 minutes), Foot Traffic (16-18 hours), and Full Service (24-36 hours).

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65°F to 80°F prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

CONSIDERATIONS & LIMITATIONS

- 1. Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard.
2. Do not thin with solvents unless advised to do so by PolySpec.
3. Confirm product performance in specific chemical environment prior to use.
4. Prepare substrate according to "Surface Preparation" portion of this document.
5. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
6. For industrial/commercial use. Installation by trained personnel only.
7. Refer to PolySpec® CLAD Application Instructions Document for official Application Procedures.

PolySpec® CLAD

TECHNICAL DATA SHEET

Epoxy Underlayment

BENEFITS

- Moisture resistance for wet spaces
• Provides a tenacious bond to the substrate
• Non-porous resin/matrix that provides long-term protection
• Underlayment is fast curing, reducing down time
• Virtually odorless, high solids product and safe to use
• No minimum or maximum thickness

RECOMMENDED USES

- Military and shipboard applications
• Underlayment for ceramic tile, epoxy terrazzo or polymeric decking materials
• Normally applied at 1/4" to fair and smooth decks prior to finish floor
• Can be used to form integrated cove base

GENERIC DESCRIPTION

Epoxy Mortar Underlayment

PACKAGING / COVERAGE

Primer @ 7 mils

700/710 1 - Gallon Unit / 275 sq. ft

PolySpec® Clad Underlayment

PolySpec® Clad 5 - Gallon Unit/ 25 sq. ft

Grout Coat @ 12 mils

700/710 1 - Gallon Unit / 130 sq. f



## SURFACE PREPARATION

**Steel:** For immersion service, "White Metal" abrasive blast with an anchor profile of 2–4 mils in accordance with Steel Structures Painting Council Specification SP-5-63 or NACE No. 1 is required. For splash and spillage exposure, "Near White" SP-10-63 or NACE No. 2 is required.

**Steel:** For steel surfaces, a "Near White Metal" ultra high-pressure wash or abrasive blast with anchor profile of 2–4 mils in accordance with Steel Structures Painting Council Specification SP-10 or NACE No. 2 is required.

**Refer to PolySpec Surface Preparation Guidelines for more details.**

## INSTALLATION STEPS

- 1. Primer/Bond Coat Application:** Mix 700/710 for approximately 1–2 minutes. Scrape sides and bottom of can to ensure complete mixing. Do not turn mixing container over on deck to allow to drain. Apply one coat with brush, short nap roller or squeegee to all surfaces where PolySpec® CLAD is to be applied. Avoid puddles. CLAD should be applied while primer is still wet. Additionally silica sand can be sprinkled into primer coat to provide anchor surface for CLAD application.
- 2. Body Coat Application:** Mix 700/710 thoroughly for approximately 1–2 minutes with a Jiffy mixer. Scrape sides and bottom of can to make sure all components are thoroughly mixed. Pour mixed resin into container. Add 50 lbs. of aggregate and mix approximately 2 minutes until all particles are wet. All components must be used promptly once the curing agent has been added to the resin to avoid having material set up in the container.  
Apply one coat of PolySpec® CLAD using standard cement finishing tools. Use low angle lighting to detect trowel marks. Hand trowel to compact, level and smooth finish. Material can be applied to desired thickness, down to feather edge.  
Allow material to cure for a minimum of 12 hours or until hard. Knock off any burrs with sander or the edge of a steel trowel. Sweep/vacuum floor clean prior to seal coat application.
- 3. Seal Coat Application:** One or two coats of PolySpec® 700/710 are normally required to achieve desired finish. Workmen should wrap shoes in polyethylene, masking tape or other suitable covering to protect the surface. Mix PolySpec® 700 and 710 material together making sure to stir thoroughly and to scrape the sides and bottom of the container to insure proper mixing. Pour from the mixing container at once to prolong working time.  
Apply by brush to base, corners, around piping and other hard to reach areas. For walking surfaces and other accessible flat areas, apply with a red or white rubber squeegee. Then roll out material using a short nap, ¼" roller to remove ridges, lap marks or drops on the surface. **DO NOT OVER SEAL.** A properly sealed surface has all voids filled with sealer uniformly. Allow sealer to cure long enough to walk on, usually 12 to 16 hours depending on the temperature. All epoxy coatings cure faster in warm weather and slower in cold weather.  
Avoid contact with water to the surface for 36 hours depending on the temperature. **CAUTION:** Contact with water will cause whitish, cloudy spots if the epoxy is not fully cured.
- 4. Clean tools and equipment with a suitable solvent such as Isopropyl alcohol (IPA) or xylene and wipe clean immediately after use. Tools that have hardened material on them will require soaking in stripper to remove. Wash hands, arms and face with warm soapy water. For best results, use PolySpec® All Purpose Cleaner, a non-flammable and low-evaporating cleaner. Always wear gloves when using this product.**

C / DOC CLAD 04006-1106-TDS

Rev 11/06

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