

## Product Data Sheet For:

# PLEXICLAD Troweled Epoxy Mortar Floor

### DESCRIPTION

PlexiClad is a 100% solids, 3-component troweled pigmented epoxy resin and natural aggregate mortar flooring system. PlexiClad is installed at a thickness of 3/16<sup>th</sup> to a 1/4 inch. It is designed to rehabilitate worn concrete and as a protective overlayment on new concrete while offering superior protection from heavy industrial traffic (impact, abrasion and compaction). The surface texture can be modified to offer varying degrees of slip and chemical resistance in wet environments. PlexiClad can also incorporate an integral seamless sanitary cove base.

### TYPICAL USES

In heavy-duty forklift traffic aisles, high abrasion and impact areas, wet processing areas, waste water treatment facilities, pulp and paper plants, food and beverage plants, dairies, machine shops, automotive manufacturing, chemical handling areas, loading docks, and as a superior resurfacer that's easy to install.

### FEATURES

Seamless, minimal odor, resistant to most reagents, high impact resistance, high abrasion resistance, and variable surface textures. PlexiClad is available with Bio-inhibitor antimicrobial. This treatment will provide the floor with long-term protection against a broad spectrum of bacterial and fungal attack. It is formulated into the flooring system from the basecoat up through the topcoat.

### Formulation

Part A (resin), Part B (activator), Part C (color), Part D (graded silica sand).

### Durability

PlexiClad is highly durable and performs extremely well in areas requiring high impact and abrasion resistance. PlexiClad is formulated to handle various degrees of chemical and thermal shock resistance. PlexiClad offers unrivaled compressive, tensile and flexural strength with excellent abrasion resistance and hardness. It resists the most severe chemicals and adheres firmly without odor when applied to concrete that has received proper surface preparation. Additional chemical resistance is achieved by using PlexiCoat F Novolac Resin.

### Appearance

PlexiClad is available in standard colors, may be broadcast with quartz, and sealed with a variety of sealers. Likewise, the surface may be left smooth, without quartz broadcast, and top coated with epoxy or urethane resins.

### Coverage

Approximately 24 – 28 square feet per single unit at 1/4".

### Surface Preparation

All concrete substrates and other surfaces to receive PlexiChemie's seamless resinous flooring systems require surface preparation. The substrate must be clean, durable, structurally sound, dry and free of

grease, wax, oil or other substrate contaminants. PROPER SURFACE PREPARATION IS CRITICAL IN THE SUCCESSFUL PLACEMENT OF ALL RESINOUS FLOORING SYSTEMS. Surface preparation requires that the following factors be reviewed and acted upon:

- Decontamination
- Removal & replacement of non-durable concrete
- Repair of surface irregularities
- Creation of the proper surface profile for a mechanical bond

Surface preparation should be done in accordance with ACI 503 Recommendations, ASTM Standard Practice for Surface Cleaning Concrete for Coating and ASTM Standard Practice for Abrading Concrete ASTM D 4259. PlexiChemie does not recommend acid etching as a form of surface preparation because it introduces both water and acid to the substrate. Surface preparation should be done by mechanical means only. Preferred method of mechanical preparation is shot blasting and scarification. Use diamond grinders in hard to reach areas.

### Mixing

Premix Part A (resin), Part B (activator), and Part C (color pack) in a running rotary drum mixer (for larger areas, a mortar mixer is preferred). Mix parts together for approximately 30 seconds. Slowly add Part D (aggregate), and mix until a lump-free, thoroughly wetted-out matrix is obtained.

### Installation

Install PlexiClad on primed substrate. Screed by spreader box or with a gauge rake. Immediately after placing, material must be hand-troweled or power-troweled to ¼" thickness. Caution – Do not over trowel. Over troweling may cause blistering.

### Cure Rate

	55°F	72°F	90°F
Foot traffic	14-16 hrs	9-10hrs	6-8 hrs
Medium loads	20-24 hrs	12-16 hrs	8-10 hrs
Heavy / CR	96 hrs	48 hrs	24 hrs

### Finish

Allow 8 – 10 hours for PlexiClad to cure @ 72°F. Once cured, grind the surface to remove excess trowel marks, and then vacuum the surface. Next, apply final topcoats:

- **Topcoat Option 1:** 10-15 mils of PlexiGlaze IFF with the desired texture.
- **Topcoat Option 2:** Install PlexiCoat F for additional chemical resistance( Novolac Epoxy).
- Either of these topcoats can be additionally topcoated with PlexiCrest P, Polyester Urethane.

### Physical Properties

Compressive Strength	ASTM C-579	12,500 psi
Tensile Strength	ASTM C-307	2,200 psi
Bond Strength	ASTM D-4541	>400 psi (100% concrete failure)
Hardness Shore D	ASTM D-2240	80-90
Abrasion Resistance CS-17 Wheel, 1 kg load	ASTM D-4060	<0.10 gm loss max
Coefficient of Friction – Standard Slip Resistance	ASTM D-2047	0.9
Flexural Modulus of Elasticity	ASTM D-790	6.0 x 10 <sup>-5</sup> psi
Flexural Strength	ASTM C-580	4,300 psi
Water Absorption	ASTM D-570	0.2%
Flammability	ASTM D-635	Self Extinguishing
Impact Resistance	MIL D-3134	No chipping, cracking or delaminating; Not more than 1/16 <sup>th</sup> of an inch permanent indentation
Coefficient of Linear Expansion	ASTM D-696	2 x 10 <sup>-5</sup> psi
VOC Content	40 CFR 59, Subpart D	Less than 50 grams per liter