

# Protective Coatings for PERFORMANCE

## **Ply-Guard EP**

#### **Surface Preparation**

Concrete must be cured 30 days and be clean, dry, and structurally sound. If using damp surface hardener, surface may be damp but with no visible water. Surface must be shot blasted, diamond ground or acid etched to achieve an International Concrete Repair Institute Guideline No. 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers Coatings and Polymer Overlays ICRI profile of CSP 3 or greater. A properly prepared surface will have the texture of 80-100 grit sandpaper. If the surface is diamond ground, use 16-24 grit diamonds and vacuum the floor twice to remove concrete dust. Excessive dust in the pores of the concrete can compromise adhesion. If acid etched, machine scrubbing is required. Previously coated surfaces must be mechanically cleaned and abraded with 80-100 mesh sandpaper and acetone tact wiped prior to application.

#### **Mixing Instructions**

If using regular cure material, pot life is 35 minutes at 77° F (25°C). Pot life of fast cure material is 15 minutes. Working time is shortened by higher temperatures. Pouring material on floor immediately after mixing will extend work time. Combining ratio is 2 parts A to 1 part B by volume. If using pigmented material, premix Part A until settled pigments are brought up from the bottom of container and are uniformly dispersed before adding Part B. Ply-Guard EP Paste will require more time in placement, mixing smaller, easier to handle quantities are recommended. Proportion the amounts carefully and mix for 2 full minutes using a low speed drill, scraping the bottom and sides of the mixing vessel using a Jiffy Type Impeller Mixing Paddle.

## **Application Guidelines**

#### **Application Recommendations**

Ply-Guard EP may be applied by roller, trowel or squeegee. For use in aggregate filled flooring, see Polyset Manual. Ply-Guard EP may be thinned with up to 15% Acetone, MEK or Glycol Ether EP when used as a primer or to re-glaze material for epoxy pebble system only. If using thinned product, keep application rate above 200 square feet (18.6 square meters) per gallon (3.79 liters). The addition of solvent may slow the cure somewhat. If using in aggregate filled flooring, do not thin with solvent.

#### **Handling Precautions**

Do not breathe vapors. Use appropriate respirator with green band cartridge to protect against methyl amine vapors. Avoid contact with skin; wear protective gloves. Read Safety Data Sheet before using.

#### Slip and Fall Precautions

Polyset recommends coatings or surfacing systems meet ANSI (American National Standard Institute) and NFSI (National Floor Safety Institute) B101.3 Test Method for Measuring Wet DCOF (dynamic coefficient of friction) of Common Hard-Surface Floor Materials, a. incline surfaces >0.45; b. level surfaces >0.42. Polyset recommends the use of angular slip-resistant aggregate in all coatings or surfacing systems that may be exposed to wet, oily or greasy conditions. It is the contractor's and end user's responsibility to provide a coating or surfacing system that meets current safety standards. Polyset or its sales agents will not be responsible for injury incurred in a slip and fall accident.

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#### **Chemical Resistance**

The chemical resistance of Ply-Guard EP Clear and Ply-Guard EP Pigmented material is influenced by many factors, including exposure to a mixture of chemicals, service temperature and housekeeping practices. Successful engineering of the Ply-Guard EP must also take into consideration such factors as substrate design, temperature cycling and anticipated thermal and mechanical shock. Users are urged to consult Polyset technical service department for recommendations on the specific project. Whenever possible, a sample should be tested under actual or simulated field conditions before a decision is made on the suitability of a given system. Test per ASTM D1308 Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes (24 hours immersion at 70°F (19°C)).

#### **General Information**

#### **Moisture Vapor Emissions/Alkalinity Precautions**

All interior concrete floors not poured over an effective moisture vapor retarder meeting ASTM E1745 Standard Specification for Plastic Water Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs and ACI 302.2R Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials are subject to possible excessive moisture vapor transmission (above 3 lbs.) and excessive relative humidity (above 80%) that may lead to blistering and failure of the coating system. It is the polyurethane cement mortar applicator's responsibility to conduct either or both ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride or ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes to determine if excessive levels of moisture are present before applying any cementitious polyurethane mortars. Polyset and its sales agents will not be responsible for cementitious polyurethane mortar failures due to undetected excessive moisture vapor emissions or excessive relative humidity.

Consult Polyset for information on moisture remediation products.

## **Application Guidelines**

ASTM D1308 24 Hours Immersion 70°F (19°C)	
Acetic Acid, 10%	No Effect
Antifreeze (Ethylene Glycol or Propylene Glycol)	No Effect
Brake Fluid	Slight Softening, Film Recovers
Coffee	No Effect
Gasoline	No Effect
Hydrochloric Acid, 10%	No Effect
MEK (Methyl Ethyl Ketone)	Film Destroyed
Mineral Spirits	No Effect
Motor Oil	No Effect
Mustard	No Effect
Sulphuric Acid, 10%	No Effect
Transmission Fluid	No Effect
Urine	No Effect
Vegetable Oil	No Effect
Whiskey	No Effect
Xylene	Slight Softening, Film Recovers

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