

TECHNICAL DATA SHEET | PREMIUM FLOOR COATING EPOXY - CLEAR

DESCRIPTION: Polytek Premium Floor Coating Epoxy is a two-component, 100% solids, high-build, low viscosity, low odor, modified cycloaliphatic, chemical resistant epoxy. This highly versatile epoxy coating comes in both clear and a variety of pigmented colors. It can be used as a primer (when vapor emission is below 4.5lbs/1000 ft²/24hr), a base coat, or as a topcoat.

USES: Polytek Floor Coating Epoxy is used to create industrial seamless floors in manufacturing plants, mechanical rooms, warehouses, commercial kitchens, aircraft hangars, and residential garages. In combination with color quartz or paint chips, it can be used to create a decorative floor coating. Floor Coating Epoxy can be used to bind clean, kiln decorative rock or can be mixed with aggregate and used as a mortar for overlays or repairs for concrete. Our Floor Coating Epoxy is an excellent high-build concrete sealer for interior use over many other types of coatings such as decorative concrete or over acid-stained floors.

ADVANTAGES:

- Meets USDA criteria
- 100% Solids
- Chemical Resistant
- High Strength
- Water Clear or Pigmented
- Low Odor
- High-Build
- Superior Adhesion

Physical Properties	
Mix Ratio	2:1
Shore D Hardness	81D
Color	Clear
Mixed Viscosity (cps)	2,400 cps
Coverage Per Gallon	6-8 Mils = 130-170 Ft ² (Thin, Clear or Single-Color Layer) 12-16 Mils = 60-80 Ft ² (Multi-Layer Metallic Floor)
Work Time	70 minutes
Recoat Time	12-24 hours
Dry Time	12 hours
Light Foot Traffic	24 hours
Light Vehicle Traffic	72 hours
Full Cure	3-7 days
VOCs	0 g/l
Tensile Strength	7,250psi

*All values measured after 24 hours at 73°F/23°C.

COVERAGE: Coverage will vary depending on the condition of the surface and desired thickness.

	6-8 Mil Coating (Thin Clear, or Single Color)	12-16 Mil Coating (Multi-Layer Metallic Floor)
Per Gallon	130-170 ft ²	60-80 ft ²
1.5 Gal Kit	200-250 ft ²	100-125 ft ²
3 Gal Kit	600-700 ft ²	200-250 ft ²
15 Gal Kit	3,000-3,500 ft ²	1,000-1,500 ft ²

***Premium Floor Coating Epoxy is intended to be used as a colored midcoat for metallic floors. The values above reflect applying epoxy over a layer of Moisture Sealing Epoxy Primer.*

Sq Ft/Gal to Mil Thickness	Sq Ft/Gal to Oz Per Sq Ft
100 sq ft/gal = 16 mil	1.28 oz per sq ft
128 sq ft/gal = 12.5 mil	1 oz per sq ft
160 sq ft = 10 mil	0.8 oz per sq ft
200 sq ft/gal = 8 mil	0.64 oz per sq ft
266 sq ft/gal = 6 mil	0.48 oz per sq ft
300 sq ft/gal = 5.3 mil	0.43 oz per sq ft

INSPECTION: Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170).

Before starting flooring work, test the existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts tend to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floor's pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is run and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for an epoxy flooring installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained. A rate of 4.5lbs/1000 ft²/24hr period or less is an acceptable amount of vapor pressure for an epoxy flooring installation. If the reading ranges from 4.5lbs to 15lbs, a moisture barrier system such as our Polytek Moisture Seal can be installed to reduce the emissions.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or altogether failure of the coating system. Testing is the responsibility of the applicator. Polytek bears no responsibility for failures due to any of the above conditions.

SURFACE PREPARATION:

Over Concrete Surfaces: Shotblasting or diamond grinding is the preferred method for preparing the concrete. Proper preparation should achieve a clean, porous, and uniform surface that feels like 50 grit sandpaper that will allow the product will soak in and properly bond.

Over Existing Polytek Epoxy: Sand the surface with a floor buffer and 100 grit sandpaper. Remove debris and wipe with acetone just before the new application. Always test a small area to ensure adhesion before application.

MIXING INFORMATION:

As a Coating: Premix each component separately. Mix 2 parts A with 1 part B, by volume, into a clean container. Mix thoroughly with a low-speed (400-600 rpm) drill motor for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing. The product may be thinned with acetone in which case it must be applied thinly enough to allow the solvent to escape (minimum 300 ft²/gal). After mixing is completed, remove from the container within 5 minutes as epoxy will begin to generate heat. Spread immediately onto the floor, as the product is spread out you will have a longer working time (25-30 minutes at 70 degrees).

For an Epoxy Mortar: Mix 2 to 5 parts of a washed and kiln-dried aggregate, by volume, to 1 part of mixed epoxy material, and mix until uniform consistency.

APPLICATION:

Primer: Prime the surface using Polytek Moisture Seal. Read individual product information sheets. Primer coat should be applied thinly and worked into the surface to help avoid pinholes.

Over Cementitious Overlay: First coat should always be pulled as tight as possible using a flat-edged trowel and back rolled. Apply at a minimum of 300 ft²/gal to minimize material outgassing. A higher build can be achieved with subsequent coats.

As a Coating: Floor Coating Epoxy within 24 hours after the primer coat. Immediately after mixing, spread a strip of the batch onto the surface along the edges where it will be “cut in”, using a brush or weenie roller. Pour the remaining material near the “cut in” area and spread evenly using a trowel or squeegee and back roll using a 1/4” or 3/8” non-shedding nap or mohair roller cover. A notched trowel or squeegee will help regulate the thickness and a porcupine roller will help to release trapped air and minimize bubbles. Depending on the look, thickness, chemical, and abrasion resistance desired, 1 to 2 coats may be applied. A non-skid surface can be achieved by broadcasting and/or back rolling a washed and kiln-dried aggregate into the coating. We recommend the Polytek Non-Skid Aggregate or aluminum oxide.

For an epoxy mortar: Prime the area with Polytek Moisture Seal (medium grit sand may be broadcast into this coat to promote adhesion). Within 24 hours, clean excess sand and apply the prepared mortar using a trowel.

DRYING TIME: You may re-coat as soon as the surface is completely dry to touch or in about 12 hours (but not later than 24 hours). If recoat time has been exceeded, lightly sand the surface and wipe clean with acetone before the next application. Light foot traffic may be permitted in 24 hours, light vehicle traffic in 72 hours, and heavy traffic in 7 days. All times are based on an average temperature of 70 degrees and 50% humidity. Cooler temperatures will increase drying time.

LIMITATIONS:

- Do not apply at any temperature below 50°F or above 95°F.
- Do not let the mixed product sit in the bucket for a prolonged period or it will become very hot and unusable.
- Do not apply over concrete with moisture vapor emissions above 4.5 lbs/1000 sq. ft/24hr
- For interior use only unless protected by a pigmented UV resistant coating.
- Do not apply if humidity exceeds 85%, the temperature is less than 5° above the dew point, or if rain is expected within 24 hours.
- Concrete must be cured for a minimum of 28 days.
- Solvents added to thin such as acetone will make the product combustible or flammable in which case be aware of sparks or open flame.
- If the solvent is added, the product must be applied thinly (300+ sq. ft/gal to allow the solvent to escape and proper curing to occur.
- Shelf Life of this material is 1 year from the date of manufacture (see batch number for manufactured date).
- Polytek recommends the use of angular slip-resistant aggregate in all coatings or floor systems that may be exposed to wet, oily, or greasy conditions. It is the contractor and end user’s responsibility to provide a flooring system that meets current safety standards.

CLEAN UP: Uncured material can be removed with a solvent. Cured material can only be removed mechanically. All



Polytek® Development Corp.
55 Hilton Street, Easton, PA 18042
610.559.8620 | sales@polytek.com
website: www.polytek.com

empty containers must be disposed of according to local, state, and federal regulations.

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