Polytek® Development Corp.
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TECHNICAL DATA SHEET | MOISTURE SEALING EPOXY PRIMER

DESCRIPTION: Polytek Moisture Sealing Epoxy Primer is a two-component, 100% solids, low viscosity, moisture accepting epoxy primer. It can reduce the hydrostatic pressure mitted by the floor from 12 lbs per 1000 square feet to less than 1 lb. Polytek Moisture Seal can even cure underwater without affecting its adhesion. When applied at 73°F / 50% humidity, Moisture Seal is a 6–7-hour cure.

USES: Polytek Moisture Sealing Epoxy Primer can be used to prime concrete, metal, and wood. Corrosion inhibitors can be added for use over metal substrates. It is an excellent all-around concrete primer/sealer with incredible adhesion.

ADVANTAGES:

- Meets USDA criteria
- 100% Solids
- Low Viscosity
- SCAQMD VOC Compliant (VOC = 0 g/l)
- High Build
- Moisture Tolerant
- Convenient 2:1 Mix; A:B = 2:1
- Superior Adhesion

Physical Properties	
Mix Ratio	2:1
Shore D Hardness	80D
Color	Amber
Mixed Viscosity (cps)	1,150 cps
Coverage Per Gallon	6-8 Mils = 200-270 Ft2 (single coat) 10-12 Mils = 125-160 Ft2 (2 coats for extra durability)
Work Time	30 minutes
Recoat Time	Within 24 hours
Dry Time	6-7 hours
Light Foot Traffic	24 hours
Light Vehicle Traffic	72 hours
Full Cure	3-7 days
VOCs	0 g/l
Tensile Strength	N/A

*All values measured after 24 hours at 73°F/23°C. ^Demold time varies with the thickness of the casting.

COVERAGE: The proper coverage of Moisture Seal varies on the level of moisture vapor emissions discovered on the job. The typical single coating application should cover 125-160 sq. ft/gallon (10-12mils). If an excessive amount of vapor pressure is present (>8 lbs/1000 sq. ft/24hr), Moisture Seal should be applied in multiple coats to achieve a minimum of 16 mils (2 coats at 200 sq. ft/gallon). With the right surface preparation, this extra protection should protect up to 15lbs.

Moisture Seal may be applied at a heavier rate to achieve a higher build system or accommodate aggregates' broadcasting.

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	6-8 Mil Coating (Thin)	10-12 Mil Coating (Standard, Single Coating)	18-20 Mil Coating (Standard, Double Coating)
Per Gallon	200-270 ft2	125-160 ft2	60-80 ft2
1.5 Gal Kit	300-400 ft2	192-240 ft2	95-120 ft2
3 Gal Kit	600-800ft2	380-480 ft2	190-240 ft2
15 Gal Kit	3,000-4,000 ft2	1,900-2,400 ft2	950-1,200 ft2

***Moisture Sealing Epoxy is intended to be used as a primer over an exposed, ground concrete floor. The values above reflect a concrete substrate that has been ground to a smooth and slightly porous surface. If applied over a highly porous surface, results may vary.*

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

CONCRETE INSPECTION & SURFACE PREPARATION: 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 porous and be able to absorb water. A minimum of 14 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 by 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.

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.

Concrete surfaces shall be diamond ground to remove all surface contaminants and laitance. The concrete should be at least 2500 psi and have an ICRI concrete surface profile within 3-5. After initial preparation has occurred, inspect the concrete for imperfections and treat it as necessary. Allow the concrete to breathe for a minimum of 24 hours after preparation. Any voids need to be filled using Polytek Crack Fill Thin, Thick, or Concrete Epoxy Floor Patch Paste. Any high spots need to be ground smooth. For surface preparation recommendations consult the Technical Service Department.

All expansion joints should be honored. Cracks should be chased with a diamond crack chaser (approximately 1/4" x 1/4"), swept, or blown clean.

MIXING INFORMATION: Mix 2 parts A with 1 part B (by volume) of Polytek Moisture Seal together for 3-4 minutes

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with a slow-speed drill mixer.

Moisture Seal may be thinned with up to 16oz of Acetone to aid in penetration. To cure properly, thinned material should be applied at less than 6 mils (and not puddle). Moisture Seal will have approximately 30 minutes of working time.

APPLICATION: As a primer: Immediately after mixing, spread a strip of the batch onto the surface along the edges where it will be cut in using a brush. Pour the remaining material near the cut-in area and spread evenly using a trowel or squeegee and back roll using a 3/8" nap non-shedding roller.

Moisture Seal can be applied as an intermediate coat for extra protection from moisture vapor emissions: Mix and apply without solvent at the desired thickness using a notched trowel or squeegee and back roll using a 3/8" nap non-shedding roller.

DRYING TIME: You may re-coat as soon as the surface is completely dry to touch or in about 8 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.
- Concrete must be cured for a minimum of 14 days and have vapor emissions less than 15 lbs/1000 sq. ft/24hr.
- For interior use only unless protected by a pigmented UV resistant coating.
- Epoxy must be cured for a minimum of 24 hours before encountering water.
- Concrete should be a minimum of 2500 psi.
- Shelf Life of this material is 1 year from the date of manufacture (see batch umber 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 empty containers must be disposed of according to local, state, and federal regulations.

DISCLAIMER: The information contained herein is considered accurate; however, Polytek® Development Corp. makes no warranty regarding its accuracy. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use. For further details, review our standard Terms & Conditions of Sale.