

POLYMER NATION CHEMICAL COMPANY, LLC

405 Oakwood Ave Waukegan, IL 60085

Setting the Standard

847-774-5038 | www.polymernation.com | sales@polymernation.com

TECHNICAL DATA SHEET: P-01 CLEAR EPOXY FLOOR PRIMER

Product Overview

P-01 is a workhorse, clear, 100% solids epoxy primer. Formulated at a **3:1** mix ratio, it presents an economic advantage over standard 2:1 epoxy primers. It can be used with our full line of colorants (PN 1339) to provide extreme color flexibility. Ease of use, good flow and leveling, toughness and flexibility are characteristics of this high quality epoxy. The cured material has good, broad-range, chemical resistance as well as good abrasion and impact resistance.

Uses and Benefits

P-01 is most often used as a primer and broadcast resin for resinous concrete flooring projects. It can also be used as a patching or trowel material when combined with PN 1170 or PN 1324 aggregate.

Limitations

P-01 is designed to be applied between 8-12 mils. Ideal application temperatures to be between 60 – 85°F. Cooler temperatures will increase cure times. Warmer temperatures will decrease working and cure times. Verify that substrate temperature is above 5 degrees of dewpoint during application and cure of material to avoid a potential amine blush.

Surface Preparation

The preparation method for each project is determined by a full understanding of the substrate to be coated, the chemistry of the coating system being used, the coating system thickness, and numerous other factors. The coating installer should fully read and understand ICRI Guideline NO.03732 and OSHA 29 CFR 1926.1153 before starting preparatory work. The aim, of preparing a substrate for coating applications, is to roughen the surface, remove weak layers, contaminants, dirt, debris and present a solid, clean, dry substrate for the primer. If unsure as to the level of preparation needed contact Polymer Nation at Lab@polymerNation.com.

Mixing

It is always recommended to mix the entire kit, whenever possible, to avoid off-ratio mixtures. Mix ratio is 3 parts P-01 Resin (Part A) to 1 part P-01 Hardener (Part B). Combine all of part A and B into a single container, large enough to except the entire kit. Mix using a 350 RPM mixer using an appropriate mixing blade for 1.5-2.5 minutes making sure to not introduce excessive air into the material.

Application

Pour entire content of mixed material onto the floor in ribbons. Spread material using a flat blade or notched squeegee. Back roll material using a 3/8" nap roller cover to maintain an even mil thickness of material. To make an epoxy

patching material mix no more material than can be mixed and applied within the stated gel time and add the selected aggregate until the desired thickness is achieved. Recoat within 24 hours. Clean tools with a solvent similar to Xylene or Acetone.

Technical Data

The data below was gathered at temperatures of 72-75°F and 30-50% RH

Packaging	4, 20, 220 Gallon kits	
Mix Ratio by Volume	3:1	
Mixed Viscosity	400-600 cP 25°C/77°F	
Gel Time	35 minutes	
Dry to Touch	6 hours	
Through Dry	10hours	
Dry to Walk	12 hours	
Dry to Light Use	16 - 24 hours	
Full Cure	7 days	
Shore D Hardness	D65 @ 24 hours	
Shore D Hardness	D80 @ 7 days	
Gloss @ 60 Degree Angle	90+	
VOC's of Mixed Material	<50 g/I EPA Method 24	
Color Scale	0.5-1.0 per ASTM D1500	
Solids by Volume Mixed	100%	
Application in Mils	8-12 (135 – 200 sq. ft./gal.)	
Available Colors	Clear & Color Packs	

PHYSICAL PROPERTIES – P-01 CLEAR EPOXY FLOOR PRIMER

Description	Standard	Results
Tensile Strength	ASTM C307	2,870 psi
Moisture Absorption	ASTM C413	<.2 weight increase
Coefficient of Thermal Lineal Expansion	ASTM C531	15-17 x 10-6 27-30 x 10-6
Compressive Strength	ASTM C579	13,000 psi
Modulus of Elasticity	ASTM C580	N/A
Flexural Strength	ASTM C580	5,750 psi
Water Vapor Transmission	ASTM D1653	See ASTM D3010
Impact Resistance	ASTM D2794	>160 inch pounds
Independent Certificate from third party testing agency	ASTM D3010	N/A
Adhesion	ASTM D3359	5A
Abrasion Resistance CS17 1000 g 1000 cycles in g Loss	ASTM D4060	0.053g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included)
Adhesion to Steel	ASTM D4541	>1,000 psi
Hiding Power	ASTM D5150	2-5/200
Flammability When Adhered to Concrete	ASTM D635	Self-Extinguishing
Adhesion to Concrete	ASTM D7234	>450 Substrate failure
Coefficient of Friction Dry Ave. three tests	NFSI B101.0	0.75
Coefficient of Friction Wet Ave. three tests	NFSI B101.1	0.7
Accelerated Weathering Testing	ASTM G154	Moderate yellowing

^{*} Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws.

Test data has been gathered from testing conducted by independent, internal and third party testing. The best way to compare coating performance is by head-to-head independent testing as this removes the numerous variables found between testing standards, equipment and testing agencies.

^{*} Store material between 60-80 degrees F in a protected dry location.