

Ply-Guard EP (Novolac)

Ply-Guard EP (Novolac) is a two-component, 100% solids, multi-functional high-performance product designed as a highly crosslinked coating, body coat, and mortar binder. It is resistant to a broad range of chemicals, including 98% sulfuric acid (non-immersion, splash, spill, and secondary containment).

Ply-Guard EP (Novolac) offers a workable pot life, blush-free cure, and positive cure down to 40°F (4.4°C). The material is available with non-sag thickener for easy vertical applications.

Ply-Guard EP (Novolac) is excellent for use as clear or pigmented coating and in broadcast, slurry and mortar systems. Ply-Guard EP (Novolac) was designed to be easy for the installer to apply, high-performance material for use in a variety of chemical resistant applications. It is especially suitable in areas subject to high concentrations of acids, such as metal plating, circuit board manufacturing, chemical processing and storage areas, secondary containment, and waste treatment facilities.

Ply-Guard EP (Novolac) has a chemical composition of modified epoxy Phenolic Novolac resin crosslinked with cycloaliphatic polyamines.

Colors & Limitations

- Sixteen (16) Standard Colors, Plus Black, White, and Clear
- Must Be Applied to a Clean, Sound, and Dry Surface
- Should Be Applied with Aggregate Fillers in Flooring Applications where Impact, Chemical, and Mechanical Abuse are Anticipated
- Clear Product is Amber; Therefore, it May Not Be Suitable as a Topcoat in Light Colored Applications

Technical Data: Physical Properties at 77°F (25°C)

Mix Ratio, by Volume:	2:1
Solids Content, %:	100
Volatile Organic Compounds (VOC), gr./lt.:	0
Viscosity, Epoxy 900 Clear, cps:	650
Pot Life, Regular Cure, 1 Quart (.95 liters) Mass, min:	25
Pot life is reduced by increases in mass and/or temperature	

Technical Bulletin

Cure Time at 77°F (25°C)		Cure Time at 50°F (10°C)	
Cure	Time	Cure	Time
Dry to Touch	3 Hours	Dry to Touch	18 Hours
Light Traffic	10 Hours	Light Traffic	36 Hours
Full Cure	7 Days	Full Cure	14 Days

Cure times are influenced by both ambient air temperature and the concrete substrate temperature.

Typical Physical Properties at 70°F (21°C)		
Tensile Strength	ASTM D638	8,200 psi
Tensile Elongation	ASTM D638	5%
Compressive Yield Strength	ASTM D695	12,500 psi
Hardness, Shore D	ASTM D2240	80–85
Adhesion to Concrete	ASTM D7234	400 psi (Concrete Failure)
Water Absorption	ASTM C413	<0.1%
Flammability when Bonded to Concrete	ASTM D635	Self-Extinguishing
Moisture Vapor Transmission (Maximum)*	ASTM F1869	3 lbs./24 Hr./1,000 Sq Ft.
Concrete Relative Humidity Moisture % (Maximum)*	ASTM F2170	75% RH
Microbial (Fungi) Resistance	ASTM G21	Passes #1
Coefficient of Friction, Static Wet, with Aggregate	ANSI B101.1	>0.45 (Inclines) >0.42 (Level)
Coefficient of Friction, Dynamic Wet, with Aggregate	ANSI B101.3	>0.45 (Inclines) >0.42 (Level)

*If the numbers exceed the product's limitations, consult Polyset's product offering.

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