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Product Data Sheet For:

PLEXI*COAT* P

Phenol Novolac Systems

DESCRIPTION

Plexi*Coat* P Phenol Novolac is a two-component, 100% solids, epoxy based novolac resin hardener blend, providing outstanding chemical and heat resistance. It can be used as a standalone coating, mortar system or a self-leveling one-coat slurry system, to coat and protect concrete surfaces. In addition, Plexi*Coat* P Phenol Novolact can be used for fiberglass mat-reinforced systems. The higher viscosity and greater functionality of Plexi*Coat* P makes its heat and chemical resistance properties superior to those of Bisphenol F epoxy novolacs. It also provides excellent chemical resistance compared to conventional epoxy resin coatings. Plexi*Coat* P Resin system is designed to sustain the highest acid and chemical resistance of all epoxy novolacs.

RECOMMENDED USES

- Plexi*Coat* P Novolac is an excellent coating for concrete, steel, aluminum and wood surfaces. It is formulated to provide greater optimum chemical resistance to concentrated caustics, acids, and solvents compared to conventional epoxy systems.
- Typical applications include coating concrete surfaces in sanitary areas such as laboratories, hospitals, pharmaceutical facilities, food and beverage processing plant, wastewater treatment facilities, pulp and paper mills, gas and electrical plants, institutional kitchens, aviation and automotive maintenance facilities, and hangars.
- Plexi*Coat* P Novolac is also recommended for coating battery acid storage areas, chemical processing and drainage areas, laboratory walls and floors, kennel surfaces, pits, manufacturing plant walls, secondary containment areas, and also containment areas that are exposed to strong acids, caustics and solvents.
- Plexi*Coat* P Phenol Novolac can also create a total impervious fiberglass mat-reinforced system.

TYPICAL PROPERTIES

Compressive Strength	ASTM D-695	14,000 psi
Tensile Strength	ASTM D-638	3,200 psi
Abrasion Resistance CS-17 Wheel, 1 kg load	ASTM D-4060	0.70 mg loss
Hardness, Shore D	ASTM D-2240	80
Bond Strength to Concrete (dry)	ASTM D-4541	425 psi (concrete fails)
Elongation at Break	ASTM D-638	10%
Water Absorption	ASTM D-570	0.09% 24 hrs in water
Heat Resistance Limitation		265˚F (122˚C)
Flammability	ASTM D-635	Self-extinguishing over concrete
Elasticity	ASTM C-580	3.5×10^6

PACKAGING / COVERAGE

3-gallon & 15-gallon units

Coverage:

100 square feet per gallon @ 16 mils

LIMITATIONS

Do not apply in temperatures less than 50°F or greater than 95°F. (Material cures slower at cooler temperatures and working time will be substantially reduced at higher temperatures.) Both components should be stored in a dry place at temperatures between 65°F and 80°F. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab. Do not thin. Substrate temperature must be at least 5°F above the dew point.

VISCOSITY

Part A	1200 cps
Part B	475 cps
Mixed	800 cps

CURE SCHEDULE @ 75°F

Pot Life	30 minutes
Tack free	3 hours
Foot traffic	6 hours
Forklift traffic	7 hours
Chemical exposure (intermittent)	3 days
Chemical immersion (continuous)	10 days

SURFACE PREPARATION *(Concrete)*

Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants. New concrete should be cured a minimum of 28 days. Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed. Remove any laitance or weak surface layers. Concrete should have a minimum surface tensile strength of at least 300 psi. Surface profile should be CSP-3 to CSP-5 reflecting a profile equal to 60-grit sandpaper or coarser. Prepare surface by mechanical means only to achieve this profile. All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.

INSTALLATION PROCEDURES
FOR PRIMER

1. Prime surface with Plexi*Seal*, Plexi*Glaze* #4 or Plexi*Coat* F Novolac.
2. Mix Part A (Resin) prior to using.
3. Pour Part B (Activator) into Part A. Mix with mechanical mixer at low speed until uniform blend is obtained.
4. Apply by squeegee and back-roll onto surface. Empty contents of pail onto surface as soon as possible.

INSTALLATION PROCEDURES
FOR MORTAR

1. Mix 4 gallons of Plexi*Coat* P Novolac Resin (Part A) with 2 gallons of Plexi*Coat* P Hardener (Part B).
2. Mix thoroughly in mortar mixer.
3. Add 250 pounds mineral aggregate.
4. Deliver to the floor and spread by spreader box.
5. Power trowel.
6. Once mortar is cured, grind the surface, then apply Plexi*Coat* P Novolac coating pigmented to the desired thickness.

INSTALLATION PROCEDURES
FOR SLURRY APPLICATIONS

1. No priming required, as system is self-priming (resin-rich).
2. After specified surface preparation is completed, apply the resin binder and silica one-coat application slurry with a trowel or a screed rake @ $1/8^{th}$ – $1/4^{th}$ inch thickness (125 mils- 250 mils). Then, broadcast silica aggregate to rejection.
3. Application of Plexi*Coat* P Phenol Novolac Topcoat is optional.*

**For additional chemical resistance and ease of cleaning, the application of PlexiCoat P Phenol Novolac Topcoat is recommended.*

INSTALLATION PROCEDURES
FOR FIBERGLASS MAT-REINFORCED SYSTEM

1. Prime with Plexi*Coat* F @ 10-12 mils. Allow to cure.
2. Apply 30-40 mils of Plexi*Coat* P Slurry Epoxy.
3. Embed 1.5 oz of fiberglass mat into the wet matrix.
4. Saturate the mat with Plexi*Coat* P Novolac. Allow to cure.
5. Mechanically sand the entire fabric reinforced floor.
6. Apply 15-20 mils of GlassFlake Reinforced Topcoat.
7. Allow to cure overnight.

Note: A second coat of PlexiCoat P can be applied if slip-resistant texture is required.

CHEMICAL RESISTANCE

	1 Day	7 Days
ACIDS, INORGANIC		
10% Hydrochloric	E	E
30% Hydrochloric	E	E
10% Nitric	E	E
50% Phosphoric	E	G
37% Sulfuric	E	E
98% Sulfuric	E	E
ACIDS, ORGANIC		
10% Acetic	E	E
10 % Citric	E	E
Oleic	E	E
ALKALIES		
20% Ammonium Hydroxide	E	E
50% Sodium Hydroxide	E	E
19% Sodium Hypochlorite	E	E
SOLVENTS		
Ethylene Glycol	E	E
Isopropanol	E	E
Methanol	p	p
d-Limonene	E	E
Jet Fuel	E	E
Gasoline	E	E
Mineral Spirits	E	E
Xylene	E	E
Methylene Chloride	P	P
MEK	E	E
PMA	G	F
MISCELLANEOUS		
20% Ammonium Nitrate	E	E
Brake Fluid	E	E
Bleach	E	E
Motor Oil	E	E
Skydrol"500B	E	E
Skydrol"LD4	E	E
20% Sodium Chloride	E	E
lO%TSP	E	E

G-Good (limited Negative Effect) - Short Term Exposure
F-Fair (Moderate Negative Effect) - Not recommended
P-Poor (Unsatisfactory) - No Resistance to Exposure
E- Excellent (Not Effected) - Recommended

-Based on spot testing of the c coating after 14 days of cure. Pigmented versions may see reduced chemical resistance and staining.

Notice: The technical data contained herein are true and accurate to the best of our knowledge. All products are offered and sold subject to Plexi-Chemie Standard Conditions of Sale. Published technical data and instructions are subject to change without prior notice.

Please be sure the Safety Data Sheet is read and understood before using any Plexi-Chemie product.