



# TECHNICAL DATA

COATINGS SEALANTS MEMBRANES POLYUREAS EPOXIES PRIMERS



## NOVA-CRETE 100

### EPOXY COATING HIGHLY RESISTANT TO CHEMICALS

#### PRODUCT DESCRIPTION:

**NOVA-CRETE 100** is a two-component liquid applied, high solids, epoxy system which provides a high build, tough, durable and abrasion resistant floor system. This coating system is resistant to solvents, acids, and alkalis. It is particularly well suited for use as a floor coating in chemical process plants, metal finishing plants, steel mills, food processing plants, sewage and waste treatment plants. Due to the chemical resistant properties of NovaCrete100 it can be used in trenches and pits, and provides protection on concrete, steel or wood. NOVA-CRETE 100 can also be used as a sealer or glaze coat for added protection on a standard epoxy floor system.

#### MANUFACTURER:

PACIFIC POLYMERS INTERNATIONAL, INC.  
12271 Monarch Street  
Garden Grove, CA 92841 USA  
714/898-0025 FAX (714) 898-5687  
<http://www.pacpoly.com>

**COLORS:** Clear, Concrete Grey, Aluminum Grey.

**SIZES:** Packaged in 1 1/2 gallon and 15 gallon kits.

#### ADVANTAGES:

- Excellent resistance to amine blush and waterspotting at ambient and low temperature
- Excellent chemical resistance
- Good low temperature cure
- Low skin irritation
- DOT NON-CORROSIVE

#### APPLICATIONS:

- Industrial Flooring that functions as durable, tough and abrasion resistant system
- High Solids Coating
- Chemical Resistant Linings and Mortar
- Secondary Containment Linings

**TECHNICAL SERVICES:** All of the latest updates to product data and specifications are available at the company web-site. Since product data and specifications change, it is the users responsibility to make certain the most current versions of product data and specifications are being used.

#### INSTALLATION:

All concrete surfaces must be clean and sound, but may be damp. Sandblasting is recommended, when possible, otherwise acid etching or wire brushing may be sufficient. Units are proportioned at the factory, so no measuring is needed on the jobsite. Combine component A and B and mix thoroughly using a mechanical mixer, preferably Jiffy Mixing Blade for 3 to 5 minutes by the clock. The mixed compound may be applied by brush or roller. High temperatures will significantly reduce the work life of the material. Do not store the material in direct sunlight prior to using.

**COVERAGE:** The recommended rate of application for the NOVA-CRETE 100 is two coats minimum, at a rate of 100 to 150 square feet per gallon (2.45-3.68 m<sup>2</sup>/liter) per coat. An aggregate may be broadcast into the topcoat, at the desired rate, for skid resistance if needed.

Another method of application is to trowel a 1/4" (6.4mm) topping mortar. To one gallon of mixed compound, between 3 and 4 parts by volume of aggregate may be added to prepare the topping mortar. Two different size of aggregate is preferred to get a more compact surface. It will tolerate more coarse aggregate, then finer aggregate. Prime the surface with some of the straight mixed NOVA-CRETE 100 before troweling the mortar. This will insure good wetting of the substrate.

The topping may be applied to any desired thickness, but a good average thickness would be 1/4 inch (6.4mm). The thickness of each layer should not exceed 1/2" (1.27cm). An alternate method of preparing the NOVA-CRETE 100 overlay consists of applying a heavy coat of the mixed compound at coverage of 50 square feet per gallon (1.23 m<sup>2</sup>/liter), using a roller or a trowel. Broadcast a rather coarse aggregate, such as a #12 mesh aluminum oxide or equivalent, into the wet material and allow to cure overnight. Next day, apply another coating of mixed NOVA-CRETE 100 at a rate of 75 square feet per gallon (1.84 m<sup>2</sup>/liter). Most of the aggregate will be embedded but enough protrudes to give traction. Total thickness will be about 1/8 to 3/16 inch (3.2mm to 4.8mm).

#### MAINTENANCE:

If NOVA-CRETE 100 is damaged, and the surface has not been contaminated, it can be replaced by sanding that area and re-coating it with NOVA-CRETE 100.



PROPERTY	TEST METHOD	RESULTS
Potlife at 77°F (25°C)		450 ± 5 minutes
Tack Free Time at 77°F (25°C)		7-8 hours
Viscosity, mixed at 77°F (25°C)	Brookfield Viscometer	
A-Component, Pigmented / Clear		45 ± 5 poise / 6 ± 2 poise
B-Component		5 ± 2 poise
Hardness (Shore D)	ASTM D-2240	80 ± 5
Tensile Strength	ASTM D-638	7,600 psi
Percent Elongation	ASTM D-638	3%
Flexural Strength	ASTM D-790	13,000 psi
Flexural Modulus	ASTM D-790	5.0 X 10 <sup>5</sup> psi
Compressive Strength	ASTM D-695	10,400 psi
Compressive Modulus	ASTM D-695	307,000 psi
Abrasion Resistance (1000 cycles, wheel # 10)	ASTM D-4060	0.052 gram
Bond Strength	ASTM C-882	2,300 psi
Mixing Ratio (A/B) by Volume		2:1
Weight per Gallon (lbs)		
A-Component, Pigmented / Clear		12.3 ± 0.2 / 9.90 ± 0.2
B-Component		8.80 ± 0.2
V.O.C. (gr/liter)	ASTM D-2369-98	30.0 grams
Solids Content (Weight / Volume)		98% / 97.5%
Light Traffic		1 – 2 days at 77°F (25°C)
Heavy Traffic		7 days at 77°F (25°C)
Curing Temperature Limit		Above 40°F (4°C)
Temperature Service Range		-35°F to 225°F
Shelf Life (when stored indoors in cool and dry location at 77°F (25°C) in unopened containers)		1 year

**WARNINGS AND HAZARDS:** Before using the products, always refer to MSDS for important warnings and safety information. Use only in areas with adequate ventilation. Avoid breathing vapors. Keep away from heat and flame. Avoid contact with eyes and skin. In the event of skin contact, remove immediately and wash with warm, soapy water. Wear suitable eye protection. Always wash hands before eating.

**AVAILABILITY AND COST:** NOVA-CRETE 100 is supplied through building material dealers. Prices vary with quantity and packaging. Quotations are made on request. These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer; those who choose to install these products without professional assistance do so at their own risk.

**PRODUCT WARRANTY:** Satisfactory results depend not only upon quality products but also upon factors beyond our control; methods of application and site conditions are examples of such

factors and can affect product performance. This warranty consequently extends only to products installed in strict accordance with the manufacturer's specifications. It is the users responsibility to satisfy himself, by his own information and tests, of the suitability of the product for his own intended use; user assumes all risk and liability resulting from his use of the product. The substrate to which the product is applied must be sound structurally and otherwise. Structural or substrate failures or imperfections resulting in damage to or failure of the product are not covered by this warranty. Since the use of the product is beyond the control of the manufacturer, the manufacturer assumes no liability for misapplication and misuse of the product. This warranty does not cover consequential damages, nor does it cover the labor attendant to replacing product in the event of a product failure. The warranty only extends to replacement of the product itself. All products proven to be defective in manufacture will be replaced at no charge. Since the use of these products is beyond our control we cannot assume any risk or liability for results obtained, nor can we accept damage in excess of the purchase price of these products.



## CHEMICAL RESISTANCE (BASED ON 72 HRS. UNDER CONTINUOUS IMMERSION)

### 1) SOLVENTS

Methanol	R	Ethanol	R
Toluene	R	Xylene	R
Butyl Cellosolve	R	Methyl Ethyl Ketone	NR
Hexane	R	Ethyl Acetate	NR
Butanol	R	Isopropanol	R
1, 1, 1 Trichloroethane	R	Methylene Chloride	NR
Propanol	R	Methylated Spirit	R
Dimethylsulphate	R	Acetone	S

### 2) ACIDS

98% Sulfuric Acid	R	70% Sulfuric Acid	R
Battery Acid	R	20% Citric Acid	R
50% Citric Acid	R	80% Citric Acid	R
10% Acetic Acid	R	Glacial Acetic Acid	S
30% Lactic Acid	R	85% Lactic Acid	S
10% Tartaric Acid	R	Oleic Acid	R
30% Nitric Acid	R	10% Phosphoric Acid	R
50% Phosphoric Acid	S	15% Chromic Acid	S
10% Hydrochloric Acid	R	18% Hydrochloric Acid	R
Conc. Hydrochloric Acid	S		

### 3. FOODSTUFFS / CLEANING FLUIDS / MISC.

Beer	R	Wine	R
Whiskey	R	Carrot Juice	R
Vegetable Juice	R	Milk	R
Coke/Pepsi	R	Sugar Solution	R
5% Starch Solution	R	Soy Bean Lecithin	R
30% Hydrogen Peroxide	R	20% Ammonium Sulfate	R
Ammonia	R	Deionized Water	R
50% Aluminum Chloride	R	50% Ammonium Nitrate	R
50% Ammonium Sulfate	R	Barium Hydroxide	R
50% Calcium Chloride	R	50% Calcium Nitrate	R
Sat. Calcium Sulfate	R	Carbon Tetrachloride	R
Chloride Water (sat.)	R	Jet Fuel Oil (@750F)	S
Skydrol	S	Ethylene Glycol	R
50% Sodium Sulfate	R	50% Sodium Nitrate	R
Potassium Chloride (sat.)	R	Potassium Nitrate	R
Pyridine	NR		

### 4. ALKALINE REAGENTS:

50% Sodium Hydroxide	R	10% Sodium Hypochlorite	R
50% Ammonium Hydroxide	R	50% Calcium Hydroxide	R
50% Potassium Hydroxide	R		

NR – Not Recommended, R – Recommended, S – Splash and Spillage