



PRODUCT DATA SHEET  
**PhenoSany® - 5021**  
Epoxy - Novolac

**GENERIC TYPE:**

A glass Flake Epoxy-Novolac with amine curative.

**DESCRIPTION:** *PhenoSany - 5021* is a dense cross-linked polymer which exhibits outstanding barrier protection against a variety of chemical exposures. Glass flake filled to provide excellent abrasion resistance, permeation resistance, and internal reinforcement. Component A and B mixed prior to application.

**FEATURES:**

- Excellent resistance to deionized water up to 200 °F.
- Excellent resistance to crude oil up to 180 °F.
- Excellent abrasion resistance
- Excellent overall chemical resistance
- Rapid cure-to-handle and cure-to-service characteristics
- Single coat application reduces labor costs
- Resistant to inorganic and organic acids, caustics and most solvents
- VOC compliant to current AIM regulations

**RECOMMENDED USES:**

May be used to line tanks or pipes and Pumps in process facilities, where hot water solutions or abrasive conditions exist. Excellent as a secondary containment lining for a variety of chemicals.

**TYPICAL CHEMICAL RESISTANCE**

	<b>IMMERSION</b>	<b>SPLASH &amp; SPILLAGE</b>
<b>Acids</b>	<b>Very Good</b>	<b>Excellent</b>
<b>Alkalies</b>	<b>Excellent</b>	<b>Excellent</b>
<b>Solvents</b>	<b>Excellent</b>	<b>Excellent</b>
<b>Salt</b>	<b>Excellent</b>	<b>Excellent</b>
<b>Water</b>	<b>Excellent</b>	<b>Excellent</b>

**NOT RECOMMENDED FOR:**

Immersion in certain concentrated acids

**SUBSTRATES:**

Apply over properly prepared steel or concrete

**Limitations** Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. This coating commonly develops an amine blush during cure. While this condition will not adversely affect performance of the coating, this blush must be removed before applying additional coats and may require removal before placing into service.

**SPECIFICATION DATA**

- **Solids Content By Volume:** 70% ± 2%
- **VOC Values As supplied:** 2.13 lbs/gal (255 g/l)  
These are nominal values and may vary slightly with color.
- **Theoretical Coverage Rate per Gallon: \***  
1,117 mil ft<sup>2</sup>. ( 27.9 m<sup>2</sup>/l at 25 microns)  
140 mil ft<sup>2</sup> at 8 mils (3.5 m<sup>2</sup>/l at 200 microns)  
\* Mixing and application losses will vary and must be taken into consideration when estimating job requirements.
- **Temperature Resistance (Non-Immersion)**  
Continuous : 300 °F ( 149 °C)  
Non-Continuous: 350 °F ( 177 °C)

Discoloration and loss of gloss is observed above 200°F (93.3 °C). Metal tanks should be insulated if temperature exceeds 140 °F

- **Dry Film Thickness**  
1 coat system: 08 mils (200 microns)  
2 coat system: 16 mils (400 microns) total DFT
- **Color Standard in :** Red ( 0050) and gray (0042).
- **Gloss:** Low
- **Shelf Life :** Twelve months when stored at 75 °F (25 °C)
- **Storage Conditions:** Store indoors.  
Temp.: 40 - 110 °F (4 -43 °C)  
Humidity: 0 - 100%

**COMPATIBLE COATINGS:**

Normally applied directly to substrate. Consult **SanyChem** Technical Service Department for specific recommendation.



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# APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions, and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

## Substrates & Surface Preparation

### General:

Remove any oil or grease from surface to be coated with clean rags soaked in **SolvenSany # 250** or **Surface AC Cleaner** in accordance with **SSPC-SP-1**.

### Steel:

**Immersion services:** Abrasive blast to White Metal Finish in accordance with **SSPC-SP-5** to obtain a 2-3 mil (50-75 micron) blast profile. Weld slag must be removed and welds ground to a rounded contour. Striping of properly prepared welds with **PhenoSany 5021** by brush or Spray is recommended prior to full coat application.

**Non-Immersion Service:** Abrasive blast to Commercial Finish in accordance with **SSPC-SP-6** to obtain a 2-3 mil (50-75 micron) blast profile.

### Concrete

Remove fins and others protrusions by stoning. Sanding or grinding. Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent time. Remove form oils, incompatible curing agents and hardeners by abrasive blasting.

**Immersion Service:** Abrasive blast to open all surface voids and obtain a surface similar to medium grit sandpaper. Voids in the concrete may require surfacing with appropriate surfacer prior to application with the system.

**Non-Immersion Service:** Horizontak surfaces must be abrasive blasted to removed laitance.

**Mixing:** Mix separately, then combine in the following proportions. Allow 30 minutes induction time at 75 °F.

	1 Gal. Kit.	5 Gal. Kit
<b>PhenoSany - 5021 P/A</b>	0.80 Gallons	4.0 Gallons
<b>PhenoSany - 5021 P/B</b>	0.20 Gallons	1.0 Gallons

**Thinning:** Thin up to 10% with **SolvenSany # 304**

**Potlife:** Three (3) hours at 75 °F and less at higher temperature. Potlife ends when coating loses body and begins to sag.

## Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results. The following equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**Conventional Spray :** Pressure pot equipped with dual regulators, 1/2" I.D. Minimum material hose, 0.110 I.D. Fluid tip and appropriate air cap.

**Airless Spray :**

Pump ratio	: 30:1 (min)**
GPM Output	: 3.0 (min)
Material Hose	: 1/2" I.D. (min.)
Tip Size	: 0.035" - 0.041"
Output Psi	: 2200 - 2500

\*\* Teflon packings are recommended and are available from the pump manufacturer.

**Brush:** For striping of welds, touch-up of small areas only. Use a natural bristle brush, applying full strokes. Avoid rebrushing.

## Application Conditions

CONDITION	MATERIAL	SURFACE	AMBIENT	HUMIDITY
<b>Normal</b>	<b>60°-85°F</b> (16°-29°C)	<b>60°-85°F</b> (16°-29°C)	<b>60°-90°F</b> (16°-32°C)	<b>0-80%</b>
<b>Minimum</b>	<b>35°F</b> (2°C)	<b>35°F</b> (2°C)	<b>35°F</b> (2°C)	<b>0%</b>
<b>Maximum</b>	<b>90°F</b> (32°C)	<b>125°F</b> (52°C)	<b>110°F</b> (43°C)	<b>90%</b>

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion. Special application techniques may be required above or below normal application conditions. To reduce outgassing when applying to concrete substrates, do not apply in direct sunlight or when surface temperatures are increasing. Best results are obtained when ambient and surface temperatures are decreasing or constant.

## Surface

Temperature	Dry to Handle	Dry to TopCoat	Final Cure
<b>50 °F (10 °C)</b>	<b>18 Hrs</b>	<b>48 Hrs</b>	<b>21 days</b>
<b>56 °F (16 °C)</b>	<b>12 Hrs</b>	<b>32 Hrs</b>	<b>14 days</b>
<b>75 °F (24 °C)</b>	<b>6 Hrs</b>	<b>16 hrs</b>	<b>7 days</b>
<b>90 °F ( 32 °C)</b>	<b>3 hrs</b>	<b>8 hrs</b>	<b>4 days</b>

These times are based on a 8.0 mil per coat and 16 mils total dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times. Condensation on the surface or humidity above 25% during application and curing will result in a surface haze or blush. Any haze or blush must be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat time is exceeded, the surface must be washed with detergent and water, then abraded by sweep blasting prior to the application of additional coats. **For force curing, contact SanyChem Technical Service for specific requirements.**

## Cleanup & Safety

**Cleanup :** Use **SolvenSany # 250** Thinner. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

**Safety :** Read and follow all caution statements on this product data sheet and on the **MSDS** for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

**Ventilation** Vapors and/or spray mist may cause explosion. When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.



**Caution** This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use nonferrous tools and wear conductive and nonsparking shoes.

## Contact

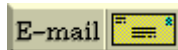


For information and Prices, Please Call a SANYCHEM Local Sales Representative.

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