Phenoline 921

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Two component cross-linked novolac epoxy
Description	Phenoline 921 is a self-priming, high solids, high build epoxy mastic that can be applied by spray, brush or roller for a variety of service conditions. The cured film provides a tough, cleanable and aesthetically pleasing surface. Serves as a stand-alone system for a variety of chemical environments and is also designed for various immersion conditions.
Features	• Single coat external corrosion protection • Excellent chemical resistance • Very good abrasion resistance • Excellent performance in wet exposures • Carboguard 920 Glass Flake may be added to improve film properties
Color	Available in limited colours. Certain colours may have limited chemical resistance. For immersion, White and Light Grey. Contact your Carboline Representative for availability.
Finish	Medium Gloss (will lose gloss, yellow and eventually chalk in sunlight exposure)
Dry Film Thickness	203 - 508 microns (8 - 20 mils) per coat Dry film thickness in excess of 1250 microns per coat is not recommended.
Typical Uses	• Recommended where a high performance, attractive, chemical resistant epoxy coating is desired. • Offers outstanding protection for piping, equipment and structural steel in various corrosive environments. • Recommended industrial environments include Chemical Processing, Mining, Offshore Oil and Gas, Food Processing, Water and Waste Water Treatment, Pulp and Paper, and Power Generation. Consult your Carboline Representative for other specifications.
Solid(s) Content	90% ±2%
Theoretical Coverage Rates	4.5m²/litre at 200 microns 1.8m²/litre at 500 microns Mixing and application losses will vary and must be taken into consideration when estimating job requirements.
VOC Value(s)	85 g/litre mixed unthinned product
Dry Temp. Resistance	Continuous: 60°C (140°F) Non-Continuous: 93°C (199°F) At 93°C, coating discolouration and loss of gloss is observed, without loss of film integrity. It is recommended that tanks and pipes operating at 60°C or above be insulated to extend coating life.
Substrates & Compatable Coatings	Apply over suitably prepared steel. A test patch is recommended before use over other existing coatings. Consult your Carboline Representative for specific information.

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Weathering	Good (chalks). Will yellow and eventually chalk upon sunlight exposure. Chemical resistant epoxies are more prone to yellowing, and as such it is advised that light colours should not be used for exterior exposure.
Temperature Resistance (Immersion)	Immersion temperature resistance depends on exposure. Consult your Carboline Representative for specific cargo and temperature recommendations.

SUBSTRATES & SURFACE PREPARATION

General	Remove any oil and grease from surface to be coated.
Steel	**For non-immersion service:** Abrasive blast to a near white metal finish in accordance with ISO 8501 Sa2½ to obtain a 40 to 75 micron blast profile. **For immersion service:** Abrasive blast to a white metal finish in accordance with ISO 8501 Sa3 to obtain a 50 to 75 micron blast profile. Soluble salt concentration must be below 100mg/m² when tested with a Weber Reilly Detection Kit. **For pitted surfaces:** A scraper coat of an appropriate solvent-free coating is recommended. Consult StonCor ME Technical Service Department.

MIXING & THINNING

Mixing	Power mix separately using a Jiffy Mixer or equivalent, then combine and mix in the following proportions: **19-Liter Kit:** Part A: 15.2 liters Part B: 3.8 liters
Thinning	Thin up to 5% by volume with Carboline Thinner # 2. **Note:** Use of thinners other than those supplied or approved by StonCor ME may adversely affect product performance and void product warranty, whether expressed or implied.
Pot Life	1 Hour at 25°C and less at higher temperatures. Pot life ends when material becomes too viscous to use.

APPLICATION EQUIPMENT GUIDELINES

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.

Spray Application	This is a high solids coating and may require slight adjustments in spray techniques. Wet film thicknesses are easily and quickly achieved.
Conventional Spray	Pressure pot equipped with dual regulators, 10mm minimum material hose, .070” fluid tip and the appropriate air cap.

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Airless Spray	**Pump Ratio:** 30:1 (min)* **GPM Output:** 3.0 (min) **Material Hose:** 10mm ID (min) Tip Size: .015 to .021' **Output psi:** 2100-2300 **Filter Size:** 60 mesh *Teflon packings are recommended and are available from pump manufacturers.
Brush & Roller (General)	Use medium bristle brush or good quality short nap roller, avoid rebrushing and rerolling. Two coats may be required to obtain desired appearance, hiding and recommended DFT. For best results, tie-in within 10 minutes at 25°C.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	10°C (50°F)	10°C (50°F)	0%
Maximum	32°C (90°F)	52°C (126°F)	43°C (109°F)	90%
Optimum	24°C (75°F)	24°C (75°F)	24°C (75°F)	40%

Do not apply or cure material when the surface temperature is below 10°C or less than 3°C above the dew point. Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

Surface Temp.	Dry to Topcoat	Dry to Topcoat Maximum	Final Cure
10°C (50°F)	16 Hours	4 Days	5 Days
16°C (61°F)	8 Hours	3 Days	4 Days
24°C (75°F)	3 Hours	32 Hours	3 Days
32°C (90°F)	2 Hours	24 Hours	2 Days

These times are at 200 microns dry film thickness. Higher film thicknesses will lengthen cure times.
Dry to touch: 3 hours at 25°C
Dry to handle: 5 hours at 25°C
If maximum recoat time is exceeded and recoat is necessary, special surface preparation will be required.
EXCESSIVE HUMIDITY OR CONDENSATION ON THE SURFACE DURING CURING MAY RESULT IN SURFACE HAZE OR BLUSH. SURFACE MUST BE CLEAN AND FREE OF BLUSH PRIOR TO TOPCOATING. CONTAMINANTS AND BLUSH MAY BE REMOVED BY WASHING WITH CARBOCLEAN 250 AND RINSING WITH POTABLE WATER.

CLEANUP & SAFETY

Cleanup	Use Carboline Thinner # 2.
Caution	Read and follow all caution statements on the product data sheet and on the material safety data sheet for this product.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 36 Months minimum when stored at 25°C Part B: 15 Months minimum when stored at 25°C ***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**
Shipping Weight (Approximate)	**19-Liter Kit:** Part A: 27kg Part B: 4.6kg
Storage Temperature & Humidity	4 to 43°C 0 to 100%
Flash Point (Setaflash)	Part A: 14°C Part B: 110°C Thinner # 2: 22°C
Storage	Store indoors

WARRANTY

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