

Selection & Specification Data**Generic Type** Amine-Cured Novolac Epoxy

Description Glass flake-filled coating with dense cross-linking that exhibits excellent overall chemical resistance to a variety of aggressive chemicals. Glass reinforcement provides added abrasion resistance, permeation resistance and internal reinforcement. Phenoline® 1205 exhibits very good acid resistance. Excellent for lining tanks or pipes in process facilities where hot water or abrasive conditions exist. Also used as a primary or secondary containment lining for a variety of aggressive chemicals.

- Features**
- Excellent resistance to acids, caustics, ethanol, gasoline, jet fuels and solvents
 - Excellent abrasion resistance
 - Excellent thermal shock resistance
 - VOC compliant to current AIM regulations
 - Excellent resistance to deionized or demineralised water up to 82°C
 - Excellent resistance to crude oil, brine or water up to 93°C
 - Very serviceable floor coating for chemical process areas

Gloss Satin**Colour** Gray (5742)**Primers** Self-priming. May be applied over epoxies and phenolics as recommended.**Topcoats** Not normally recommended**Dry Film Thickness** 375 microns minimum to be achieved in 1 or 2 coats.**Solids Content** 70% ± 2%

Theoretical Coverage Rate 3.5 m²/l at 200 microns
1.75 m²/l at 400 microns
Allow for losses in mixing and application.

Mix Ratio 4:1 by volume (Part A : Part B)

VOC Values As supplied: 250 g/l
Thinned 10% with #2: 308 g/l

Dry Temp. Resistance Continuous: 218°C
Non-Continuous: 232°C
Discolouration is observed above 93°C

Temperature Resistance (Immersion*) Water / Brine: 93°C
Crude Oil: 93°C
Crude Oil / Water: 93°C
Demineralised Water: 82°C
Ethanol: 54°C

*Linings exposed to cargos warmer than the outside steel temperature are subject to "cold wall" effect. The smaller the temperature differential, the less negative influence on performance.

Substrates & Surface Preparation

General Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.

Steel Immersion:
Abrasive blast to AS 1627.4 Class 2½ (SSPC-SP10). Surface Profile 50-75 microns
Non-Immersion:
Abrasive blast to AS 1627.4 Class 2 (SSPC-SP6). Surface Profile: 50-75 microns

Concrete Concrete must be cured 28 days at 24°C and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258-92 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

Performance Data

Test Method	System	Results	Report #
Temperature Cycling Test Modified Freeze/Thaw test cycling from -18°C – 218°C for 11 days	Blasted Steel 2 coats	No blistering, cracking or checking. No delamination or loss of adhesion.	SR 332
Cyclic Steam-Out Simulation 150°C	Blasted Steel 1 coat	No blistering, cracking, or delamination	03744

Test reports and additional data available on written request.

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. **General Guidelines:**

Spray Application (General) The following spray equipment has been found suitable and is available from manufacturers such as DeVilbiss and Graco.

Conventional Spray Pressure pot equipped with dual regulators, 12mm (½") I.D. minimum material hose, 2.8mm (.110") I.D. fluid tip and appropriate air cap.

Airless Spray Pump Ratio: 45:1 (min.)*
Output: 12 litre/min. (min.)
Material Hose: 12mm (½") I.D. (min.)
Tip Size: .035-.041"
Output PSI: 2200-2500

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

Brush Recommended for touch up and stripping of welds only. Use a natural bristle brush with full strokes. Avoid re-brushing.

Roller Not recommended

Mixing & Thinning

Mixing Power mix separately, then combine and power mix.
DO NOT MIX PARTIAL KITS.

Ratio 4:1 by volume (Part A : Part B)

Thinning Recommended maximum 10% with Thinner #2.
In certain conditions when applying onto vertical surfaces in single coats greater than 200 microns DFT it may be necessary to use thixotropic Thinner #213*. This thinner is available on special order – not a standard stocked item.
*Agitate Thinner #213 before use. Thinner #213 will have a thick viscous appearance, which is normal.

Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life 3 Hours at 24°C.
Pot life ends when coating loses body and begins to sag. Pot life times will be less at higher temperatures.

Cleanup & Safety

Cleanup Use Thinner #2 or Acetone. 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 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 vapour 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 local Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	18°-29°C	18°-29°C	18°-29°C	30-60%
Minimum	13°C	10°C	10°C	0%
Maximum	32°C	43°C	38°C	85%

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 to the substrate. Special application techniques may be required above or below normal application conditions.

Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Dry to Recoat or Topcoat w/ Other Finishes	Final Cure for Immersion & Maximum Recoat Times
10°C	18 hours	48 hours	21 days
16°C	12 hours	32 hours	14 days
24°C	6 hours	16 hours	7 days
32°C	3 hours	8 hours	4 days

These times are based on a 375 micron dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discolouration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the maximum recoat time is exceeded, the surface must be abraded by sweep blasting prior to the application of additional coats. For force curing, contact Carboline Technical Service for specific requirements.

Packaging, Handling & Storage

Pack Sizes **10 litre Kit**
Part A: 8 litres (part 10 litre pail)
Part B: 2 litres (2 litre can)

Flash Point (Setaflash) Part A: 12°C
Part B: 93°C

Storage Temperature & Humidity Store under cover. KEEP DRY
4° - 43°C
0-90% Relative Humidity

Shelf Life Part A & B: Min. 36 months at 24°C

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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