

SELECTION & SPECIFICATION DATA

Generic Type	Modified epoxy phenolic
Description	A high performance immersion-grade coating system which has excellent resistance to wet / dry cycling conditions at elevated temperatures. It is typically used on hot steel substrates under insulation operating up to 204°C. It has excellent chemical resistance properties to handle the corrosive effects of wet insulation under thermal cycling conditions. This primer is used with Thermaline 400 Finish as a two-coat system.
Features	<ul style="list-style-type: none"> • Temperature resistance to 204°C • Very good flexibility • Excellent overall chemical resistance • Very good abrasion resistance • Easily applied by spray • Acceptable for use over stainless steel
Color	Red only
Finish	Flat (0-10)
Recommended Thickness	125 microns per coat
Solid(s) Content	By volume 65% ± 2%
Theoretical Coverage Rates	5,0m ² /litre at 125 microns Allow for loss in mixing and application.
VOC Value(s)	As supplied: 300 g/l
Under Insulation Resistance	Continuous: 204°C (399°F) Non-Continuous: 232°C (450°F)

SUBSTRATES & SURFACE PREPARATION

General	All surfaces must be thoroughly cleaned to remove dirt, grease, mill scale, loose rust and any other contaminants that can reduce adhesion via SSPC-SP1 solvent cleaning with recommended surface preparation.
Ferrous Metal	ISO 8501 Sa2½ to obtain a 37 to 75 micron blast profile. Weld slag must be removed. Striping of properly prepared welds with primer by brush or spray is recommended.
Stainless Steel	Surface profile should be a dense angular 25 to 75 micron and is best achieved through abrasive blasting. Remove all contaminants that would interfere with the performance of stainless steel for the intended service such as, but not limited to, imbedded iron or chlorides.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix.
Thinning	May be thinned up to 25% by volume with Thinner # 2. Use of thinners other than those supplied or approved by StonCor Africa may adversely affect the product performance and will void product warranty, whether express or implied.
Ratio	4:1 by volume

Thermaline 400 Primer

PRODUCT DATA SHEET



MIXING & THINNING

Pot Life | 4 Hours at 25°C and less at higher temperatures. Pot life ends when coating loses body and begins to sag.

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.

General | All surfaces must be thoroughly cleaned to remove dirt, grease, mill scale, loose rust and any other contaminants that can reduce adhesion via SSPC-SP1 solvent cleaning with recommended surface preparation.

Conventional Spray | Pressure pot equipped with dual regulators, 10mm I.D. minimum material hose, 1.8mm fluid tip with appropriate air cap.

Airless Spray |
Pump Ratio: 45:1 (min)*
GPM Output: 3.0 (min)
Material Hose: 10mm I.D. (min)
Tip Size: 0.015-0.019"
Output PSI: 2100-2300
Filter Size: 60 mesh

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

Brush & Roller (General) | Use a natural bristle brush applying in full strokes. Avoid rebrushing. If rolled, use a short nap roller with solvent resistant core. Avoid rerolling.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	13°C (55°F)	10°C (50°F)	10°C (50°F)	0%
Maximum	32°C (90°F)	43°C (109°F)	38°C (100°F)	85%

Do not apply when the surface temperature is less than 2°C above the dew point. Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Touch	Final Cure	Between Coats
10°C (50°F)	4 Days	15 Hours	NR	4 Days
16°C (61°F)	2 Days	10 Hours	15 Days	2 Days
24°C (75°F)	24 Hours	5 Hours	7 Days	24 Hours
32°C (90°F)	12 Hours	3 Hours	2 Days	12 Hours

These times are based on the recommended dry film thicknesses. Excessive film thickness or inadequate ventilating conditions after application require longer dry times and will cause premature failure in extreme cases. Excessive humidity or condensation on the surface during curing may result in surface haze or blush; any haze or blush should be removed by washing with water before recoating.

Curing Details | **Relative Humidity: 50%**

CLEANUP & SAFETY

Cleanup | Use Thinner # 2.

Ventilation | When used 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. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.

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 non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life | 24 Months 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) | Part A: 6.6kg
Part B: 1.15kg

Storage Temperature & Humidity | 4 to 43°C
0 to 90% Relative Humidity

Flash Point (Pensky Martens Closed Cup) | Part A: 29°C
Part B: 8°C

Storage | Store indoors

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.