

Selection & Specification Data

Generic Type	Single package, Silicone Rubber Finish
Description	For use as a high performance finish for stainless steel surfaces in service from 300°F (149°C) to 800°F (426°C) with excellent resistance to thermal shock. Thermaline 2954 is typically used to prevent chloride stress cracking in service under insulation. For use over carbon steel, Thermaline 2954 is applied over modified silicone primers or Carbozinc® 11 series.
Features	<ul style="list-style-type: none">▪ Will air dry at ambient▪ Resistant to severe thermal shock
Color	Black only
Finish	Flat
Primers	Thermaline® 2977, 4765 or Carbozinc® 11 series
Dry Film Thickness	1.5-2.0 mils (5-6 wet mils)
Solids Content	By Volume: 30% ± 2
Theoretical Coverage Rate	487 mil/ft ² /gal (11.8 m ² /l at 25 microns) Allow for loss in mixing and application.
VOC Values	<u>As Supplied:</u> 5.1 lbs/gal. (611 g/l) <u>Thinned:</u> 12.8 oz/gal (10%) w#235 5.3 lbs/gal (635 g/l)
Dry Temp. Resistance	800°F (426°C)

Substrates & Surface Preparation

General	Surfaces must be clean and dry and properly primed with Thermaline® 2977, 4765, or Carbozinc® 11 series.
Stainless Steel/Aluminum	SSPC-SP 7
Carbon Steel, exterior, up to 800°F	SSPC-SP 10

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) Conventional spray application is preferred.

Conventional Spray Use DeVilbiss P-MBC, E-needle and tip, and a 704 air cap or equal. Use adequate air volume for proper equipment operation. Hold gun 10-12" from the surface and at right angles. Lap each pass 50%. Apply 5.0 wet mils to obtain desired dry film.

Brush & Roller (General) Use only good quality brushes and roller covers where spray application is not permitted.

Mixing & Thinning

Mixing Thoroughly mix to a uniform consistency prior to use.

Thinning Normally not required. May be thinned up to 12.8 oz/gal. (10%) by volume with Thinner #235 for "hot" applications exceeding 150°F (66°C). Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Cleanup & Safety

Cleanup Use Thinner # 2.

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 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 insure all personnel are below guidelines. If not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.

Caution Flammable. Vapor harmful. Causes eye irritation. Contains organic solvents. Keep away from sparks and flame. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Wear appropriate and properly fitted respirator (NIOSH/MSHA approved). Follow respirator manufacturer's directions for use. Keep container closed when not in use.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	55°-95°F (13°-35°C)	40°-150°F (4°-65°C)	40°-120°F (4°-49°C)	90%
Minimum	55°F (13°C)	40°F (4°C)	40°F (4°C)	0%
Maximum	95°F (35°C)	300°F (149°C)	120°F (49°C)	90%

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

Ambient Temperature	Dry to Touch	Firm Set	Final Cure
77°F (25°C)	1 Hour	12 Hours	24 Hours

These times are based on a 2.0 mil (50 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. While Thermaline 2954 is an ambient temperature-cure coating, optimum performance properties are achieved when final heat cure occurs at in-service temperatures of 400°F (204°C). Heat cure is at 300°F (148°C) for 3 hours, or 2 hours at 400°F (204°C).

Packaging, Handling & Storage

Shipping Weight (Approximate)	1 Gallon	5 Gallon
	10 lbs. (4.5kg)	46 lbs. (21kg)

Flash Point (Setaflash) 71°F (22°C)

Storage (General) Store indoors

Storage Temperature & Humidity 40°F-100°F (4°- 43°C)
0-90% Relative Humidity

Shelf Life Min. 24 months at 77°F (24°C)

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



350 Hanley Industrial Court, St. Louis, MO 63144-1599
314/644-1000 314/644-4617 (fax) www.carboline.com

An **RPM** Company

April 2003 replaces December 2000

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 or injuries resulting from use. Liability, if any, is limited to replacement of products. 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. Carboline® and Thermaline® are registered trademarks of Carboline Company.