Thermaline® 4765

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Two package (vehicle plus zinc dust) silicone zinc primer
Description	Corrosion resistant primer used over carbon steel in areas exposed to extreme temperatures. Suitable for service from 400°F - 1200°F. Thermaline 4765 may be used in high temperature service under insulation when top coated with Thermaline 4700.
Features	• Zinc rich formulation provides outstanding corrosion resistance • Air dries to touch at ambient temperatures • Is resistant to severe thermal shock • Provides outstanding long-term performance and appearance when topcoated with Thermaline Silicone Finishes
Color	Gray (0700)
Finish	Flat
Dry Film Thickness	2 mils (51 microns) per coat (4 wet mils)
Solids Content	By Volume 45% +/- 2%
Theoretical Coverage Rate	722 ft²/gal at 1.0 mils (17.7 m²/l at 25 microns) 361 ft²/gal at 2.0 mils (8.9 m²/l at 50 microns) Allow for loss in mixing and application.
VOC Values	Thinner 235 13 oz/gal (10%): 4.3 lbs/gl (515) As Supplied 4.0 lbs/gal (480 g/l)
Dry Temp. Resistance	Continuous: 1000°F (538°C) Discoloration is observed above 600°F (93°C)

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	SSPC-SP 10 with a 1.5-2.5 mils (37-65 microns) surface profile.

MIXING & THINNING

Mixing	Power mix base, then combine and power mix as follows. Pour zinc dust very slowly into premixed base with continuous agitation. Mix until free of lumps. Pour mixture through a 30-mesh screen. DO NOT MIX PARTIAL KITS. Tip: Sifting zinc through a window screen will aid in the mixing process by breaking up or catching dry zinc lumps. **1.2-Gal Kit** Part A: 1.114 gal Zinc Filler: 4.9 lbs **3.57-Gal Kit** Part A: 3.32 gal Zinc Filler: 14.6 lbs

MIXING & THINNING

Thinning	Normally not required. May be thinned up to 12.8 oz./gal. (10%) with Thinner #235 for “hot” applications exceeding 150°F(66°C) up to 300°F(149°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.

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 (General)	The following spray equipment has been found suitable for application of this material. 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. Overlap each pass 50%. Apply 4.0 wet mils to obtain desired dry film.
Brush & Roller (General)	Recommended for touch up of small areas or where spray application is not permitted. Avoid excessive re-brushing or re-rolling.
Brush	Use a medium bristle brush.
Roller	Use a solvent resistant, short-nap mohair roller cover

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
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)	95%

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. See thinning.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Topcoat w/ Other Finishes	Firm Set
77°F (25°C)	1 Hour	6 Hours	8 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. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. **Note:** Thermaline 4765 will not reach its ultimate film properties until fully heat cured for two hours at 400°F. After a 2 hour flash-off @75°F(24°C), raise temperature slowly to 350-450°F(176-232°C) and hold for 2 hours.

CLEANUP & SAFETY

Cleanup	Use Thinner #2. 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.

CLEANUP & SAFETY

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 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, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 12 months at 77°F (24°C) Part B: 24 months at 77°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40°F – 100°F (4.4°C – 37.8°C) 0 – 85% humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	**1.2 Gallon Kit** Part A = 13 lbs. Zinc Dust = 6 lbs. **3.57 Gallon Kit** Part A = 36 lbs. Zinc Dust = 15 lbs.
Flash Point (Setaflash)	80°F (26°C)

WARRANTY

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