

Selection & Specification Data

Generic Type	Two package (vehicle plus zinc dust) silicone alkyd zinc primer
Description	A heat resistant primer for use on steel substrates that may reach up to 800°F (426°C).
Features	<ul style="list-style-type: none">• Excellent "hot" application characteristics, may be applied over hot substrates up to 300°F (149°C)• Will air dry "tack free" at ambient but will remain soft until heat curing has been achieved• Typically topcoated with a silicone or modified silicone finish
Color	Gray (0700)
Finish	Flat
Dry Film Thickness	2.5 mils (62 microns)
Solids Content	By Volume: 49%
Theoretical Coverage Rate	786 mil ft ² /gal (19 m ² /l at 25 microns) Allow for loss in mixing and application.
VOC Values	<u>As Supplied:</u> 3.7 lbs./gal. (443 g/l) Thinned: 12.8 oz/gal w/#235 4.0 lbs./gal. (480 g/l)
Limitations	Do not exceed recommended thickness.

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 0.5-1.0 (13-25 micron) surface profile. SSPC-SP 3 for touch-up maintenance.

Thermaline®2977

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 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. Lap each pass 50%. Apply 6.0 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 short-nap mohair roller cover with phenolic core.

Mixing & Thinning

Mixing Thoroughly mix zinc dust into 2977 base before use. Keep agitated.

Thinning May be thinned up to 12.8 oz./gal (10%) with Thinner #235 for "hot" application exceeding 150°F (65°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.

Pot Life Use within 2 days after mixing in zinc dust.

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. 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 sure or if not able to monitor levels, use MSHA/NIOSH approved 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.

Application Conditions

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

Industry standards are for substrate temperatures to be above the dew point. 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

Substrate Temperature	Dry to Handle	Dry to Topcoat w/ Other Finishes	Final Cure
77°F (25°C)	1 Hour	4 Hours	--
300°F (149°C) *	--	--	3 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. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the final cure times have been exceeded, the surface must be abraded by sweep blasting prior to the application of additional coats. * Note: Heat cure at 3 hours.

Packaging, Handling & Storage

Shipping Weight (Approximate) 3.44 Gallon Kit
Base = 38 lbs.
Zinc dust = 15 lbs.

Flash Point (Setaflash) 80°F (26°C)

Storage (General) Store indoors

Storage Temperature & Humidity 40° - 100°F (4°-43°C)

Shelf Life Min. 24 months at 77°F (25°C)

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



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