Thermaline® 4700 & 4700 Aluminum

Application Equipment

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 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 short-nap mohair roller cover with phenolic core.

Mixing & Thinning

Mixing Power mix until uniform in consistency. Avoid excessive air entrapment.

Thinning Normally not required. May be thinned up to 12.8 oz./gal. (10%) by volume with Thinner #235 for "hot" applications exceeding 150° (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 #2 Thinner. 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 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.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	77°F	125°F	80°F	50%
Minimum	55°F	40°F	40°F	0%
Maximum	95°F	150°F	120°F	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

Substrate Temperature	Dry to Handle	Dry to Topcoat with Itself	Final Cure
77°F (25°C)	1 Hour	4 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. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the final cure time is exceeded, the surface must be abraded prior to the application of additional coats. While Thermaline 4700 is an ambient temperature-cure coating, optimum performance properties are achieved when final heat cure occurs at 400°F for two hours. Final hardness is not reached until heat curing has been achieved.

Packaging, Handling & Storage

Shipping Weight (Approximate) 1 Gallon Kit: 12 lbs. (5.5 kg); 5 Gallon Kit: 55 lbs. (25 kg)

Flash Point (Setaflash) Thermaline 4700 83°F (28°C)
Thermaline 4700 Aluminum 68°F (20°C)

Storage (General) Store indoors

Storage Temperature & Humidity Between 40°F-100°F(4°C-38°C)
0-90% Humidity

Shelf Life 1 year in proper storage and at 77°F.

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