

SELECTION & SPECIFICATION DATA

Generic Type	Single package silicone acrylic finish
Description	Air-dried silicone aluminium coating suitable for high temperature exposures up to 273°C (525°F). Air-drying characteristics allow for faster handling of in-shop applications than with other high-temperature coatings. Heat cure above 150°C (300°F) is recommended and will impart added strength and integrity to the coating.
Features	<ul style="list-style-type: none"> • Temperature resistance up to 273°C (525°F) • Air-dried curing capabilities • Single-coat application • Excellent resistance to thermal shock • Good weathering and colour stability
Colour	C901 Aluminum
Primer	Self-priming on stainless steel, aluminum and metalized surfaces. For carbon steel, apply over recommended zinc primer. A mist coating may be required to minimize bubbling over inorganic zinc primers.
Dry Film Thickness	38 - 51 microns (1.5 - 2 mils) per coat Don't exceed 63 microns in a single coat. Excessive film thickness over inorganic zincs may increase damage during shipping or erection.
Solids Content	By Volume 48% +/- 2%
Theoretical Coverage Rate	18.9 m ² at 25 microns (770 ft ² at 1.0 mils) 12.6 m ² at 38 microns (513 ft ² at 1.5 mils) 9.4 m ² at 50 microns (385 ft ² at 2.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied : 456 g/l These are nominal values and may vary slightly with colour.
Dry Temp. Resistance	Continuous: 232°C (450°F) Non-Continuous: 274°C (525°F)
Limitations	The alignment of aluminium flakes in aluminium-filled finishes is very dependent on application conditions and techniques. Care must be taken to keep conditions as constant as possible to reduce variations in final appearance. It is also advisable to work from a single batch of material since variations can occur from batch to batch. For more information consult Carboline Technical Service Department.
Topcoats	Not Applicable

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	Abrasive blast to AS 1627.4 Class 2½ (SSPC-SP10) with 12-25 microns surface profile. Prime with specific Carboline primers as recommended by your Carboline Coating Specification.

Thermaline 4900 Aluminium

PRODUCT DATA SHEET



MIXING & THINNING

- Mixing** | Thoroughly mix to a uniform consistency prior to use.
- Thinning** | Normally not required. May be thinned up to 17% by volume with Thinner #25 for ambient conditions. For "hot" applications exceeding 66°C (150°F) use Thinner #22 instead. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
- Ratio** | N/A

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 250-300 mm from the surface and at right angles. Lap each pass 50%.
It is recommended to thin the product 20% and apply 100 microns wet to obtain the optimum dry film of 40 microns DFT.
- Airless Spray** | Not recommended.
- Brush & Roller (General)** | Recommended for touchup of small areas or where spray application is not permitted. Avoid excessive re-brushing or re-rolling.
- Brush** | Not recommended due to final appearance.
- Roller** | Not recommended due to final appearance.

APPLICATION CONDITIONS

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

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CURING SCHEDULE

Surface Temp.	Dry to Topcoat with Itself	Dry to Touch
25°C (77°F)	4 Hours	1 Hours

These times are based on a 38-50 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 4900 is an ambient temperature cure coating, optimum performance properties are achieved when final heat cure occurs at in-service temperatures of 150°C for 3 hours. After a 2-hour flash off at 24°C allow an increased in temperature to proceed slowly up to 150°C over a 6 hour period.

CLEANUP & SAFETY

Cleanup	Use Thinner #2 or acetone. 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 vapour 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 suitable 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 local electrical 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	Min. 24 months at 25°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Shipping Weight (Approximate)	1 litre Pack - 1.5 kg 4 litre Pack - 5.7 kg
Storage Temperature & Humidity	4° - 38°C 0-90% Relative Humidity
Flash Point (Setaflash)	25°C
Storage	Store Indoors.

Thermaline 4900 Aluminium

PRODUCT DATA SHEET



WARRANTY

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