product data

carboline®

Thermaline®4700 And 4700 Aluminum

Selection & Specification Data

Generic Type
Single package silicone finish (air-drying)

Description
High-performance finish for areas exposed to extreme temperatures. Suitable for service from 400°F-1200°F. Color stability at maximum temperature will depend on color selected.

Features
- Fully air-dries at ambient temperatures. This eliminates the force curing requirements prior to handling that is typically associated with high-temperature silicone coatings.
- Resistant to severe thermal shock.
- Provides outstanding long-term performance when applied over Thermaline 4765 Silicone Zinc Primer or Carbozinc Inorganic Zinc Primers.

Color
Available in limited colors. Color Stability – most colors: 800°F. Black and Aluminum: Continuous 1000°F (538°C) and surges up to 1200°F (649°C).

Finish
Gloss (Flat at High Temp)

Primers
Inorganic zincs or silicone zinc. None needed for stainless steel or aluminum.

Topcoats
Normally none

Dry Film Thickness
2 mils (50 microns), 4 wet mils (100 microns)
Do not exceed 2.0 mils in a single coat.

4700 Aluminum: 1.5 mils (40 microns)
Two coats are recommended over bare steel and one or two coats over inorganic zincs.

Solids Content
By Volume: 44% ± 2
4700 Aluminum by volume: 30% ± 2

Theoretical Coverage Rate
705 mil/ft^2/gal. (17 m^2/ l at 25 microns)
4700 Aluminum: 481 mil/ft^2/gal.
(12 m^2/ l at 25 microns).

VOC Values
As Supplied: 4.0 lbs./gal (480 g/l)
(sprayed un-thinned except in hot application)
Thinned:
12.8 oz/gal w/#235 (10%) 4.3 lbs./gal (516 g/l)

4700 Aluminum supplied: 5.04 lbs./gal (604 g/l)
Thinned:
8 oz/gal w/#10 (25%) 5.16 lbs/gal 9618 g/l)
16 oz/gal w/#10 (12.5%) 5.27 lbs/gal (632 g/l)

Dry Temp. Resistance
400°F - 1200°F (204°C - 649°C) depending on the color.

Limitations
- Do not use for immersion service.
- Do not exceed thickness recommendation. Excessive film thickness may result in blistering and delamination when the temperature is increased.

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 (12-25 micron) surface profile. Prime with specific Carboline primers defined in *Market Guides* or as recommended by your Carboline sales representative.

Stainless Steel
Sweep blast cleaning (SSPC-SP7) is recommended.

Aluminum
Sweep blast cleaning (SSPC-SP7) is recommended.

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