

Selection Data

GENERIC TYPE : Modified silicone

GENERAL PROPERTIES : A single package, medium to high temperature coating that withstands continuous temperatures of 750°F(399°C) and surges up to 1000°F(538°C)

- Resistant to thermal shock conditions from ambient to 750°F(399°C).
- Application over Carbozinc primers will provide superior performance by preventing rusting and rust streaking during a shutdown or when the equipment is exposed to moisture and/or salts at temperatures less than 200°F(93°C); otherwise, may be applied directly to properly prepared steel and stainless steel.
- Excellent weathering properties.
- Meets VOC (Volatile Organic Content) regulations of 5.42 lbs/gal (650 g/l) for high temperature coatings.

RECOMMENDED USES : For the protection of the exterior of equipment such as stacks, incinerators, furnace exteriors, heat exchangers and other elevated temperature steel surfaces.

NOT RECOMMENDED FOR : Use as a lining or immersion service or exposure to splash and spillage of acids or alkalies.

CHEMICAL RESISTANCE GUIDE :

<u>Exposure</u>	<u>Splash & Spillage</u>	<u>Fumes</u>
Acids	Poor	Good
Alkalies	Poor	Good
Solvents	Poor	Good
Salt	Good	Very Good
water	Excellent	Excellent

TEMPERATURE RESISTANCE : (Dry)

Continuous : 750°F(399°C)
Non-Continuous : 1000°F(538°C)

SUBSTRATES : Properly prepared steel, stainless steel or other surfaces as recommended.

TOPCOAT REQUIRED : None

COMPATIBLE COATINGS : May be applied over inorganic zincs such as the Carbozinc series primers which will increase performance over steel. A mist coat may be required when applying over inorganic zincs to minimize bubbling.

Specification Data

THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL :

Carboline 4674 By Volume
40% ± 2%

VOLATILE ORGANIC CONTENT (VOC) : The following are nominal values :

As Supplied : 4.4 lbs/gal (525g/l)

Thinned :

<u>Thinner</u>	<u>oz/gal</u>	<u>lbs/gal</u>	<u>g/l</u>
10	8	4.5	543
10	16	4.7	560

RECOMMENDED DRY FILM THICKNESS PER COAT :

11/2 mils (40μ) - Two coats are recommended over bare steel and one or two coats over inorganic zincs.

Excessive film thickness over inorganic zincs may result in blistering and delamination when the temperature is increased.

THEORETICAL COVERAGE PER MIXED GALLON :

640 mil ft² (15.7 m²/l at 25μ)
426 ft² at 11/2 mils (10.4 m²/l at 40μ)

Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

STORAGE CONDITIONS : Store indoors.
Temperature : 40-110°F(4-43°C)
Humidity : 0-100%

SHELF LIFE : 36 months when stored indoors at 75°F(24°C)

COLORS : Aluminum (C901), Black (C900) only.

FINISH : Flat

Ordering Information

Prices may be obtained from Carboline Sales Representative or Carboline Customer Service.

APPROXIMATE SHIPPING WEIGHT :

	<u>1's</u>	<u>5's</u>
Carboline 4674	11 lbs.(5 kg)	51 lbs.(23 kg)
Carboline Thinner #10	8 lbs.(4 kg)	40 lbs.(18 kg)

FLASH POINT : (Setaflash)

Carboline 4674 68°F(20°C)
Carboline Thinner #10 83°F(28°C)

Carboline® 4674

SURFACE PREPARATION : Remove all oil or grease from the surface to be coated with Thinner #2 or Carboline Surface Cleaner 3 (refer to Surface Cleaner 3 instructions) in accordance with SSPC-SP 1.

Steel : Apply over properly prepared recommended primers. For application to unprimed steel, abrasive blast to a Near White Finish in accordance with SSPC-SP 10 and obtain a 1-1½ mil (25-40µ) blast profile.

MIXING : Power mix to a uniform consistency before thinning.

THINNING : May be thinned up to 16 oz/gal (12%) with Thinner 10.

Use of thinner other than those supplied or approved by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

APPLICATION TEMPERATURES :

	<u>Material</u>	<u>Surfaces</u>
Normal	60-90°F(16-32°C)	60-90°F(16-32°C)
Minimum	40°F(4°C)	40°F(4°C)
Maximum	100°F(38°C)	130°F(54°C)
	<u>Ambient</u>	<u>Humidity</u>
Normal	60-90°F(16-32°C)	10-85%
Minimum	40°F(4°C)	0%
Maximum	130°F(54°C)	90%

Do not apply when the surface temperature is less than 5°F(3°C) above the dew point.

Special thinning and application techniques may be required above or below normal conditions.

SPRAY : The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

CONVENTIONAL : Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, a 0.043" I.D. fluid tip and appropriate air cap.

Airless :

Pump Ratio	: 30 : 1 (min.)
GPM Output	: 3.0 (min.)
Material Hose	: 3/8" I.D.(min.)
Tip Size	: 0.013~0.015"
Output PSI	: 2200~2400
Filter Size	: 60 mesh

* Teflon packings are recommended and are available from the pump manufacturer.

BRUSH : For small touchup areas only. Use a natural bristle brush, applying with full strokes. Avoid rebrushing or reworking of material. Take care to avoid excessive film thickness.

ROLLER : Application by roller is not recommended.

DRYING TIMES : These times are based on a 1½ mil (40 µ) dry film thickness. Excessive film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure.

<u>Surface Temperature</u>	<u>Between Coats</u>
50°F(10°C)	8 Hours
60°F(16°C)	4 Hours
75°F(24°C)	2 Hour
90°F(32°C)	1 Hour

Note : Will air dry to touch, but will remain soft for handling purposes.

FINAL CURE : To obtain optimum properties, must be cured at temperatures in excess of 350~450°F(177~232°C). After a 2 hour flash off at 75°F(24°C), allow an increase in temperature to proceed slowly up to 350°F(177°C) over a 6 hour time period. Hold at 350~450°F(177~232°C) for 2 hours, the coating is then cured and may be put into service

CLEAN UP : Use Thinner 2 or Toluol.

CAUTION : READ AND FOLLOW ALL CAUTION STATEMENTS ON THIS PRODUCT DATA SHEET AND ON THE MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST. WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

