PRODUCT DATA SHEET

DerCoat® - 600C

Modified Silicone High Heat Coating

GENERIC TYPE:

Single package, modified silicone resin

DESCRIPTION:

DerCoat-600C is a single component coating finish coat designed to protect steel surfaces operating at temperatures of 1000°F (538°C). Aluminum (**250-EL3601**) will withstand peak temperatures up to 1200°F (649°C). ***DerCoat-600C*** exhibits outstanding resistance to thermal shock from 1000 °F to 32 °F. Only one coat is required, but may be applied over **ZinCoat-400 HS** base coat for superior performance. A **ZinCoat-400 HS** base coat prevents rusting of steel and rust streaks during shutdown or when operating temperature falls below 200 °F(93 °C).

FEATURES:

- Resistant to severe thermal shock.
- Provides outstanding long-term performance when applied over **ZinCoat** Inorganic Zinc Primers.
- Maximum handling and resistance properties are achieved through force curing.
- ***DerCoat-600C*** Aluminum (**250-EL3601**) resists peak temperatures up to 1200°F (649 °C)
- Excellent application properties

RECOMMENDED USES:

Recommended for coating stacks, breeching, furnaces, hot piping, muffles, exhausts and other elevated temperature steel surfaces in any industry, including marine. Generally used where temperature exceed 500 °F (260 °C)

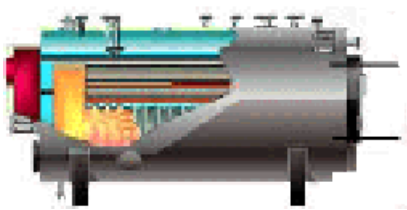
Typical Uses: For protection of equipment such as stacks, breechings, boiler casings, furnaces, driers, process vessels, piping, manifolds, radiators, and heat exchangers.

NOT RECOMMENDED FOR:

For inmmersion Service or exposure to splash and spillage of acid or alkalines. Containment of aromatic solvents or severely corrosive materials.

PRIMER REQUIRED:

None required. A prime coat of **ZinCoat-400**, however, will greatly increase service life over steel.



SPECIFICATION DATA

- **Solids Content By Volume:** 30% ± 2%

- **Theoretical Coverage Rate per Gallon: ***

  12.0 m² / Lit at 25 microns
  7.5 m² / Lit at 40 microns

•Mixing and application losses will vary and must be taken into consideration when estimating job requirements.

- **Temperature Resistance (Non-immersion)**

  Continuous : 1000 °F (538 °C)
  Non-Continuos : 1200 °F (649°C)

- **Recommended Dry Film Thickness Per Coat:**

  1½ mils (40 microns) two coats are recommended over steel and one coat over inorganic Zincs.

- **Color Standard in** : Aluminum Only.
- **Flexibility :** Good
- **Finish :** Flat at High Temp)
- **Abrasion Resistance :** Good
- **Substrates:** Carbon Steel or stainless steel.
- **Weathering :** Excellent
- **Shelf Life :** Six months when stored at 75 °F (25 °C)
- **Storage Conditions:** Store indoors.

  Temp.: 40 - 110 °F (4 -43 °C)

  Humidity: 0 - 100%

COATINGS COMPATIBLE :

May be applied over inorganic Zincs (**ZinCoat**). Excessive film thickness of **DerCoat-600C** over inorganic Zincs may result in blistering and delamination when temperature is increased. **SanyChem** Technical Service Department for specific recommendation.

TOPCOAT REQUIRED:

None Required.

TYPICAL CHEMICAL RESISTANCE

Exposure	Splash & Spillage	Fumes
Acids	Fair	Fair
Alkalies	Poor	Fair
Solvents	Good	Good
Salt	Good	Very Good
Water	Good	Very Good

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APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions, and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

Substrates & Surface Preparation

General:
All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, form release agents, curing compounds, loose and flaking paint and other foreign substances. Round off all rough welds and sharp edges. Remove all weld spatter. Clean rags socked in ***SolvenSany #252*** in accordance with SSPC-SP-182.
New Surfaces: Steel – Blast to near-white metal surface cleanliness in accordance with SSPC-SP10 or SSI-Sa21/2. Blast profile on steel should be 0.25 to 1.0 mils (7 to 25 microns) in depth and be of a sharp, jagged, nature as opposed to a "peen" pattern (from shot blasting). Surfaces must be free of grit dust. ***DerCoat-600C*** should be applied to cleaned surfaces as soon as possible to prevent rerusting or contamination. All surfaces must be free of dust and grease before application. **ZinCoat-400 HS** must be properly cured before application of ***DerCoat-600C***.

DerCoat-600C Coatings is applied at 1.0 mil (25 microns) per coat. Two coats are recommended when used alone, or one coat when used over an inorganic zinc primer. Do not exceed recommended film thickness. In application over inorganic zinc rich primers, allow full cure of the inorganic zinc primer prior to application of ***DerCoat-600C.***
Previously Painted Surfaces: Old coatings must be totally removed and a profile established as in **New Surfaces**.

Mixing: Power mix to a uniforme consistency before thinning. Thin up to 12% by volume with SanyChem ***SonvenSany Thinner #260***.

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

Spray Application (General)
The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco. Use adequate volume for correct operation. Use a 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass.

Application: For conventional air spray application, a DeVilbiss MBC-510 gun with "E" needle, 704 air cap should be used. Adjust pressure as needed. Use a 3/8" minimum I.D. material hose. Hold on approximately 12-14 inches from the surface and at a right angle to the surface.

Mfr. & Gun	Fluid Tip	Air Cap
Binks #18 or #62	63B	63PB
DeVilbiss P-MBC	FX	704
	Approx. .046" I.D.	

Airless Spray:
When application is made by airless spray, a Graco 204-000 gun with .011" (280 microns) orifice diameter, 30 to 1 pump should be used. Adjust pressure as needed. Use a maximum of 50 ft. hose length. Pressure pots or pumps should be at same level or above spray guns. Use a 3/8" minimum I.D. material hose. Hold on approximately 18-20 inches from the surface and at a right angle to the surface.

Mfr. & Gun	Pump
Graco 205-641	Bulldog 30:1
DeVilbiss JGB-510	QFA-519 32:1
	Approx. .013" - .015" I.D. Tip with 2200 psi

NOTE: Teflon packings are recommended and are available from manufacturer.

Do not exceed recommended film thickness.
Spreading Rate: Apply at 481 sq.ft. per gallon (12 m2/L) depending on surface texture and porosity. Make allowances for any losses due to overspray or surface irregularities.

Brush or Roller:
Spray is recommended. For small areas or touch-Up, use natural bristle brush, applying with full strokes. Avoid rebrushing. Use short nap mohair roller with phenolic core.

Shipping

Freight Classification:	Paint, 3, PG II, UN1263 (Flammable Liquid)
Flash Point:	40°F (4°C)
Packaging:	1 gallon (3.785L)
	5 gallon (18.925L)
Shipping Weight:	4-1 gallon case - 38 lbs. (17.3 kg)
	5-gallon - 46 lbs. (20.9 kg)

DRYING TIMES

Surface Temp. & 50% RH	Between Coats
40 °F (4 °C)	16 hrs
50 °F (10 °C)	8 Hrs
60 °F (16 °C)	4 Hrs
75 °F (24 °C)	2 Hrs
90 °F (32 °C)	1 Hrs

FINAL CURE: To obtain optimum properties, DerCoat-600C Coating can be cured in service at temperatures of 350 °F (177 °C) to 450 °F (232 °C). Allow initial increase in temperature to proceed slowly up to 350 °F over 6 hour time period.

REPAIR / TOUCH-UP PROCEDURES: Recommended for small areas only.

Surfaces defects, runs or sags: Hand or power sand or grind area until level with surrounding surface.

Mechanical Damage to Substrate: Power sand or grind affected area to provide a surface comparable to a Commercial Blast Finish (SSPC-SP-6-82). Feather edge to surrounding coating. Wipe damaged area and surrounding coating with SanyChem SolvenSany # 252. Touch up by brush applying ***DerCoat-600C***.

APPLICATION CONDITIONS

	Material	Surfaces	Ambient	Humidity
Normal	70 °F (21 °C)	75 °F (24 °C)	75 °F (24 °C)	10 – 80 %
Minimum	40 °F (4 °C)	50 °F (10 °C)	40 °F (4 °C)	0 %
Maximum	90 °F (32 °C)	110 °F (43 °C)	110 °F (43 °C)	55 %

Do not apply when the surfarce temperature is less than 5 °F or 2 °C above the dew point.

Cleanup & Safety

Cleanup
Use ***SolvenSany #222***. 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 as a tank lining or 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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

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.

FOR INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN. 1/2001

Contact

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