

### PRODUCT DATA SHEET

# DerCoat® - 2800

**Modified Silicone High Temperature** 

#### **GENERIC TYPE:**

Single package, modified silicone

**DESCRIPTION:** *DerCoat-2800* is for use as a high performance finish for stainless steel surfaces in service from 300°F (149°C) to 800°F (426°C) with excellent resistance to thermal shock. *DerCoat-2800* is typically used to prevent chloride stress cracking in service under insulation. For use over carbon steel, *DerCoat-2800* is applied over modified silicone primers or *ZinCoat®-400 HS*. *DerCoat-2800* is a protective coating for medium to high temperature service with good resistance to mild chemical fume environments.

### **FEATURES:**

- For peak temperature up to 1000°F (538°C) and operating temperatures of 750°F (399°C)
- Pure, unmodified silicone resins and thermally stable pigments.
- · Will air dry at ambient.
- · Resistant to severe thermal shock.

<u>Limitations of Use:</u> Allow 24 hours between coats. Bake cure at 450°F (232°C) for one hour or allow to cure in operation. Operation temperature must be above 400°F (204°C). **Full film properties are not obtained until heat cured**. When applying over inorganic zinc, air dry for 72 hours prior to placing in service.

#### **RECOMMENDED USES:**

Recommended for the protection of equipment such as stacks, breeching, furnaces, hot piping, muffles, incinerators, heat exchangers operating from ambient temperature to 750 °F (399 °C) and other elevated temperature steel surfaces in any industry, including marine. Generally used where temperature exceed 500 °F (260 °C). The use of ZinCoat-400 HS as a prime coat prevents rusting during shutdown and/or when the coated units are exposed to moisture at temperature less than 200 °F (93 °C).

### **NOT RECOMMENDED FOR:**

For immmersion 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.

**ORDER INFORMATION:** Prices may be obtained from **SanyChem Sales Representative** or main Office.

### APPROXIMATE SHIPPING WEIGHT:

Freight Classification: Paint, Combustible Liquid UN1263, PG III

 Packaging:
 1 gallons
 5 gallons

 DerCoat-2800
 11.0 lbs. (5.0 kg.)
 51.0 lbs. (23.1 kg.)

 SolvenSany # 260 Thinner
 9.0 lbs. (4.1 kg.)
 45.0 lbs. (20.4 kg.)

### FLASH POINT (Pensky/Martens Closed Cup):

 DerCoat-2800
 20 °C

 SolvenSany # 260 Thinner
 28 °C

**Topcoat Required:** None. Please consult the appropriate system guide, the particular job specification or your **SanyChem Coatings**' Industrial Coatings Specialist for proper systems using this product.

**NOTE:** A test patch is recommended to verify compatibility with existing coatings, to evaluate the adhesion to any existing coatings and the adhesion of existing coatings to the substrate.

### **SPECIFICATION DATA**

• Solids Content By Volume: 42% ± 2%

• Theoretical Coverage Rate per Gallon: \*

16.8  $m^2$  / Lit at 25 microns 10.5  $m^2$  / 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 : 750 °F (399 °C) Non-Continuos : 1000 °F (538°C)

· Recommended Dry Film Thickness Per Coat:

1½ mils (40 microns)

NOTE: Excessive thickness may cause blistering

Color Standard in : Aluminum and Black

• Flexibility : Good
• Gloss : Low
• Abrasion Resistance : Fair

• Substrates: Apply to properly prepared steel or

over inorganic zincs.

• Weathering : Excellent

• Shelf Life: 24 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 (**ZinCoa**t). Excessive film thickness of **DerCoat-2800** over inorganic Zincs may result in blistering and delamination when temperature is increased. Consult **SanyChem** Technical Service Department for specific recommendation.

### **TOPCOAT REQUIRED:**

None Required.

CHEMICAL RESISTANCE GUIDE DerCoat-2800				
Exposure	Splash & Spillage	Fumes		
Acids	Good	Excellent		
Alkalies	Fair	Excellent		
Solvents	Poor	Good		
Water	Excellent	Excellent		
Salt	Good	Excellent		

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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:

Remove any oil or grease from surface to be coated with clean rags soaked in SolvenSany # 252 or Surface AC Cleaner in accordance with SSPC-SP-1-82.

#### Steel:

New Surfaces: Steel – If used direct to steel, blast to near white metal surface cleanliness in accordance with SSPCSP10 or ISO-Sa21/2. Blast profile on steel should be 0.75 to 2 mils (19 to 50 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. Steel surfaces may be primed with DerCoat-2100 Primer or ZinCoat®-400 HS (Inorganic zinc Primers). Coating should be applied to cleaned surfaces as soon as possible to prevent rerusting or contamination.

**Previously Painted Surfaces:** Old coatings must be totally removed and a profile established as in **New Surfaces**.

Mixing: Use mechanical agitation for proper mixing, such as Jiffy Mixers or similar commercially available mixers. Stir until thoroughly mixed. Prior to application, strain mixed material through 60 mesh screen or other suitable filtration device.

Thinning: Thin up to 12% by volume with SolvenSany #

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.



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### **Spray Application**

Spray

Use sufficient air volume for correct operation of equipment. Use a 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass later.

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

Conventional Spray

Use a 3/8" minimum I.D. material hose. Hold gun approximately 12-14 inches from the surface and at a right angle to the surface.

approximately 18-20 inches from the surfaces and at a

 Mfr. & Gun
 Fluid Tip
 Air Cap.

 DeVilbiss P-MBC or JGA
 FX
 704

 Binks #18 or #62
 63B
 63 PB

 I.D.
 Approx.
 0.043" I.D.

Airless Spray Use 3/8" minimum I.D. material hose. Hold gun

right angle to the surface.

 Mfr. & Gun
 Pump

 DeVilbiss JGN-502
 QFA-514 or QFA-519

 Binks Model 700
 Mercury 5C or B8-36 37:1

 Graco 205-591
 President 30:1 or BullDog 30:1

Use a 0.013" - 0.015" tip with 2100 psi. Filter: 60 mesh

Teflon packings are recommended and available from the pump manufacturer



For information and Prices, Please Call a SANYCHEM Local Sales Representative.



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APPLICATION TEMPERATURES				
Conditions	Material	Surfaces	Ambient	Humidity
Normal	16-32 °C	18-32 °C	16-32 °C	10 – 85%
Minimum	4 °C	4 °C	-18 °C	0 %
Maximum	38 °C	82 °C	54 °C	95%

Do not apply when the surface temperature is less than 2  $^{\circ}\text{C}\,$  above the dew point

DRYING TIMES BETWEEN COATS			
Temperature	Time		
10 °C	8 hours		
16 °C	6 hours		
24 °C	4 hours		
32 °C	2 hours		

Final Cure: To obtain optimum properties, *DerCoat-2800* coating can be cured in service at temperatures of 350 °C (177 °C) to 450 °F (232 °C). Allow initial increase in temperature to proceed slowly up to 350 °F (177 °C) over a six hour time period.



**Brush:** Recommended for small areas or touch-up only. Use natural bristle brush applying with full strokes. Avoid rebrushing or reworking of material. Take care to avoid excessive film thickness.



Roller: Not recommended.

## Cleanup & Safety

Cleanup

Use **SolvenSany #272**. 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.

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





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