



**PRODUCT DATA SHEET**  
**ZinCoat® - 400HS**  
 Self Curing, Inorganic Zinc Primer

**GENERIC TYPE:**

A two package, Solvent Based Inorganic Zinc

**DESCRIPTION:** **ZinCoat-400HS** is a high solids inorganic zinc rich primer that protects steel galvanically, eliminating sub-film corrosion. It easily meets VOC regulations regarding metal filled coatings, while providing the proven performance of alkyl silicate zinc rich coatings technology. **ZinCoat-400HS**

**FEATURES:**

**ZinCoat-400HS** provides excellent corrosion protection and resistance to salting, as well as high zinc loading per square foot.

- Meets Class B slip co-efficient and creep testing criteria for use on faying surfaces
- Rapid cure. Dry to handle in 1 hour at 75°F (24°C) and 50% relative humidity
- Low temperature cure down to -18 °C
- High zinc loading
- Available in ASTM D520, Type II zinc version
- Very good resistance to salting
- May be applied with standard airless or conventional spray equipment
- May be used as a weldable pre-construction primer where VOC regulations prohibit traditional coatings. Exhibits long term corrosion resistance during pre-construction is required along with full recoatability and weldability.
- VOC compliant to current AIM regulations

**RECOMMENDED USES:**

**ZinCoat-400HS** is typically used for chemical plants, pulp and paper mills, refineries, highway bridges and coastal or salt atmospheres, including offshore. **ZinCoat-400HS** is excellent for interior and exteriors of storage tanks containing fuels and organic solvents. Has many uses as a maintenance primer, with or without topcoat, depending on exposure.

**NOT RECOMMENDED FOR:**

Continuous immersion in water over 130 °F (54 °C). Containment of aromatic solvents, strong mineral and organic acid or severely corrosive materials.

**COMPATIBLE COATINGS:**

**ZinCoat-400HS** Apply directly over properly prepared steel.

**Primers** Self Priming

**Topcoats** Not required for certain exposures. can be top-coated with epoxies, phenolics, vinyls, Chlorinated rubber, acrylics, silicones, rubbers, Polyurethanes, High-Heat Silicones or other high performance finishes and others as recommended by your **SanyChem** sales representative. Under certain conditions, a mist coat is required to minimize topcoat bubbling.



**SPECIFICATION DATA**

- **Solids Content By Weight :** 79% ± 2%
- **Zinc Content By Weight:** 86% ± 2% in dry film

- **Theoretical Coverage Rate per Gallon: \***  
 1000 mil ft<sup>2</sup> ( 24.5 m<sup>2</sup> / l at 25 microns)  
 333 mil ft<sup>2</sup> ( 8.2 m<sup>2</sup> / l at 75 microns)

Allow for loss in mixing and application

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

- **Volatile Organic Content ( VOC ) as supplied :** **EPA METHOD 24**  
**As supplied ( per mixing instructions )** Base and Zinc Filler 416 g/L.  
 These are nominal values.

- **Temperature Resistance (Non-Immersion Service):**  
 Untopcoated:  
   Continuous: 400°F (399°C)  
   Non-Continuous: 800°F (427°C)  
 With recommended silicone topcoats:  
   Continuous: 1000°F (538°C)  
   Non-Continuous: 1200°F (649°C)

• **Recommended Dry Film Thickness Per Coat and system:**  
 2.0-3.0 mils (50-75 microns). Dry film thickness in excess of 6.0 mils (150 microns) per coat is not recommended. When used as a weldable preconstruction primer, the recommended dft is 0.75- 1.25 mils (19-31 microns).

- **Flexibility:** Fair-Good
- **Abrasion Resistance:** Excellent

- **Color Standard in :** Green or Gray

- **Gloss** Matt Finish

- **Substrates:** Apply over suitably prepared steel, or other as recommended.

- **Shelf Life :** **ZinCoat-400HS Base** 12 months when stored at 75 °F (25 °C)

- ZinCoat-400HS Filler** 24 months minimum

- **Storage Conditions:** Store indoors.  
 Temp.: 40 - 110 °F (4 -43 °C)  
 Humidity: 0 - 100%

**CHEMICAL RESISTANCE GUIDE**  
**ZinCoat-400 HS**

Exposure	Splash & Spillage	Outside Weathering or Mild Fumes	Immersion
Acids	Very Good	Excellent	NR
Alkalies	Very Good	Excellent	NR
Solvents	Excellent	Excellent	Excellent
Water	Excellent	Excellent	Excellent
Salt	Excellent	Excellent	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 in accordance with SSPC-SP-1.

### Steel

**For immersion service,** abrasive blast to a white Metal Finish in accordance with SSPC-SP-5 to a degree of cleanliness in accordance with NACE # 1 to obtain 1-3 mil (25-75 microns) blast profile.

**For non-immersion service,** abrasive blast to a Commercial Finish in accordance with NACE # 3 to obtain a 1-3 mil (25-75 microns) blast profile. For steel Tank linings, welds should be continuous. Remove weld spatter, slag, and oxides caused from welding.

### Mixing:

Power mix base, then combine and mix in the following proportions:

### Ratio

	1 Gal. Kit. 1 Gallon (Partially filled) 14.6 Lib. Unit	5 Gal. Kit. 4 Gallons (Partially filled) 73 Lib. unit
ZinCoat – 400HS P/A		
ZinCoat – 400HS P/B		

### Thinning:

Mix as supplied. Sift zinc filler slowly into Base with continuous agitation. Mix until free of lumps. Pour mixture through a 30 mesh screen. Thin, as required up to 12% by volume with **SolvenSany # 266** in cool weather ( below 60 ° F ). For warmer or windy conditions, use **SolvenSany # 270** up to 12% by volume.

### Potlife:

8 Hours at 75°F (24°C) and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

## 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.

### 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. General guidelines:

### Spray Application (General)

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

### Conventional Spray

Agitated pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, with a maximum length of 50', .070" I.D. fluid tip and appropriate air cap. Hold gun approximately 6-8 inches from the surface and at right angle to the surface. Keep the pressure pot at the same elevation as the gun. If spraying stops for more than 15 minutes, blow the material from the hose back into the pot. Use sufficient air volume for correct operation of equipment. Use 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass later.

### Airless Spray

Graco Silver or Equivalent  
 Pump Ratio: 30:1 (min.)  
 GPM Output: 3.0 (min.)  
 Material Hose: 3/8" I.D. (min.)  
 Tip Size: .017-.019"  
 Output PSI: 1400 -2250  
 Filter Size: 60 mesh

Teflon packings are recommended and available from the pump manufacturer.

### Brush

Brush For touch-up of areas less than one square foot only. Use medium bristle brush and avoid rebrushing.

### Roller

Not recommended

DRYING TIMES		
Temperature & 50% R.H.	Dry to Handle	Dry to Topcoat
-18 °C	7 days	7 days
4 °C	24 hours	48 hours
16 °C	16 hours	24 hours
27 °C	8 hours	18 hours
38 °C	6 hours	16 hours

These times are based on recommended dry film thickness. Excessive film thickness or inadequate ventilating conditions after application require longer dry times and will cause premature failure in extreme cases.

• **ZinCoat-400HS** will skin if left in opened container. Skin has no effect on performance, but should be removed before using.

• For interior application, or tank linings, if the relative humidity is low, the curing time can be reduced by raising the relative humidity by steam or water spray on the coated surface after allowing to dry for one hour at 24 °C

• When **ZinCoat-400HS** is used for immersion service untopcoated where zinc pickup could be detrimental or when dry spray is evident and **ZinCoat-400HS** is to be topcoated, remove loose zinc after curing by rubbing with aluminum screen wire.

• To recoat fresh **ZinCoat-400HS**, thin 50%. To recoat aged **ZinCoat-400HS**, thin normally. Apply over clean, dry **ZinCoat-400HS**.

## APPLICATION TEMPERATURES

Conditions	Material	Surfaces	Ambient	Humidity
Normal	4-35 °C	4 – 43 °C	4 – 43 °C	40-90%
Minimum	-18 °C	-18 °C	- 18 °C	0 %
Maximum	54 °C	93 °C	54 °C	95 %

Do not apply when the surface temperature is less than 2 °C above the dew point

## Cleanup & Safety

### Cleanup

Use **SolvenSany # 252**. 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 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



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

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