

PRODUCT DESCRIPTION

Hi-Pon 80-23 Inorganic Zinc Tank Coating is a two-pack, solvent-based coating composed of ethyl silicate and zinc dust. It is suitable for use as a single coat on steel for atmospheric and immersed environments. The type of zinc dust used complies with ASTM D 520 (Type II).

INTENDED USE

It is specially designed for protection lining of storage tank for petroleum products and solvents, particularly dry methanol.
It can be used for new build or for maintenance and repair.

GENERAL PROPERTIES

Colour	: Grey
Gloss Level	: Matt
Volume Solid	: 60 ± 2 %
Specific Gravity	: 2.65 ± 0.05 kg/l (Mixed)
Flash Point	: Base: 23 °C Hardener: N/A Mix: 23 °C
VOC	: 500 g/L (EPA Method 24)
Typical Thickness	: 75 – 150 µm dry film 125 – 250 µm wet film

Limitations

Not suitable for cargoes above 1000 ppm moisture content
pH range suitable for immersion only: 5.5 - 10

SURFACE PREPARATION

All surfaces should be clean dry, and free from contamination. The surface should be assessed and treated in accordance with ISO 8504. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For optimum performance, abrasive blast clean to Sa 2½ (ISO 8501-1) or SSPC-SP10 with a surface profile of 50 – 75 microns (2 – 3 mils). If oxidation has occurred between the blasting and application of this product, the surface should be re-blasted to the specified visual standard. Surface defect revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Damaged Area

Damage area should be prepared with abrasive blast cleaning to Sa 2½ (ISO 8501-1) or SSPC-SP10. When abrasive blasting is not possible, mechanical cleaning to St3 (ISO 8501-1) or SSPC-SP3 is acceptable. Hi-Pon 80-23 should be applied over a surface that is dry and free from all contamination.

Other Surfaces

The coating may be used on other substrates. Please contact your local Nippon Paint office for more information.

**CONDITION DURING
APPLICATION**

Avoid paint application when the temperature is below 10 °C and above 45 °C, or humidity is below 50 %. Increase the humidity by spraying water when humidity is below 50 %. To achieve the best film performance, humidity should be kept above 65 %. For humidity below 65%, the curing period may be extended dependent on the temperature and humidity. The temperature of steel surface must be minimum 3 °C above dew point of surrounding air.

APPLICATION GUIDE

Mixing Ratio	:	BASE	:	HARDENER	
		2.8	:	1	(by volume)
		0.426	:	1	(by weight)
Add Hardener (Zinc Powder) into Base and mixed thoroughly before use with a mechanical agitator.					
Pot Life	:	<u>25 °C</u> 4 hours			
Theoretical Coverage	:	8 m ² /litre at 75 µm DFT			
		4 m ² /litre at 150 µm DFT			
Thinner	:	Zinky-2000 Thinner			
Cleaner	:	Zinky-2000 Thinner			

APPLICATION METHOD

Conventional air and airless spray are recommended for application. Brush and roller are recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness. Avoid mud cracking.

APPLICATION DETAILS

Airless Spray	:	Tip Size	: 0.013" – 0.023"	
		Pressure at nozzle	: 120 – 150 bar	
Drying Time	:	Substrate Temperature	<u>25 °C</u>	<u>40 °C</u>
		Surface Dry	10 mins	5 mins
		Through Dry	2 hrs	1 hr
		Cured	6 hrs	4 hrs

Remarks: If there are any pinholes or other defects in the coating, they must be rectified and allowed to cure as specified before service.

A suitable non-destructive magnetic gauge should be used to verify the average thickness of Hi-Pon 80-23 Inorganic Zinc Tank Coating after it has cured. Overapplication and excessive thickness can result in mudcracking,

which requires complete removal by abrasive blasting and reapplication to original specifications.

The given data must be considered as guidelines only. The actual drying time/times may be shorter or longer, depending on film thickness, ventilation, humidity, requirement for early handling and mechanical strength etc.

HEAT RESISTANCE**Dry, Atmospheric**

- Continuous : 400 °C
- Minimum : - 40 °C
- Intermittent : 540 °C

Intermittent temperature duration – 1 hour maximum

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

**RECOMMENDED
COATING SYSTEM**

Hi-Pon 80-23 Inorganic Zinc Tank Coating is normally applied directly to steel as a single coat:

On Sa 2½, 1 coat x 100 µm dry film thickness

For the choice of coating system for different application, refer to the product brochure or contact Nippon Paint for professional recommendation.

PACKAGING

<u>Unit</u>	<u>Base</u>		<u>Hardener</u>	
	Weight	Container Size	Weight	Container Size
12.8 KG (4.8 L)	3.8 KG (3.5 L)	5 L	9 KG (1.3 L)	5 L
25.6 KG (9.6 L)	7.6 KG (7.0 L)	10 L	18 KG (2.6 L)	10 L

STORAGE

Shelf Life Base : 6 months (25 °C) minimum
 Hardener : 12 months (25 °C) minimum

Subject to re-inspection thereafter. Higher temperature during storage may reduce the shelf life and may lead to gelling in the tin. Frequent temperature cycles may also shorten the shelf life.

Store in tightly closed container in a dry, cool and well-ventilated space, keep away from sources of heat and ignition.

SAFETY PRECAUTION

- This product is intended for use of professional applicators. Refer to the safety information display on the container and in the safety data sheet (SDS) before using the product.
- Use this product in well-ventilated area, avoid skin contact, spillage on the skin should immediately be removed with suitable cleanser, soap and water.
- Eye should be well flush with water and seek for medical attention immediately upon contact with this product.
- During the application, naked flame, welding operation and smoking is not allowed. Adequate ventilation should be provided.
- If you have any doubt regarding the suitability of use, refer to Nippon Paint for further advice.

DISCLAIMER

The information in this data sheet is given to the best of Nippon Paint's knowledge and practical experience. Users may consult with Nippon Paint on the general suitability of the product for their needs and specific application practices though it remains each user's responsibility to determine the suitability of the product for the user's particular use. The condition of the substrate and application are not within Nippon Paint's control. Therefore, no implied conditions, warranties or other terms will apply to the Product. Nippon Paint does not and cannot warrant the results which the user may obtain by using the product. In no event will Nippon Paint be liable to the user for any kind of loss (whether direct or indirect) even if Nippon Paint was previously advised of it. In line with Nippon Paint's policy for continuous development, Nippon Paint reserves the right to modify the product and the information in this data sheet without prior notice. It is the user's responsibility to check with Nippon Paint for the latest version of this data sheet. This data sheet has been translated into various languages. In the event of any inconsistency, the English version shall prevail.