



# HI-PON 80-12 VINYL ESTER LINING

TECHNICAL DATA SHEET

## PRODUCT DESCRIPTION

**Hi-Pon 80-12 Vinyl Ester Lining** is a three-pack, high chemical resistant vinyl ester coating, with inert fillers and fibreglass reinforcement. Suitable for properly prepared carbon steel and concrete substrates in atmospheric and immersed environments.

## INTENDED USE

It is designed for use in the internal lining of chemical storage tanks and pipes, and for structural steelwork in environments where superior resistance to chemical attack is required. Suitable for use in most aggressive environments. Excellent resistance in both aliphatic and aromatic organic solvents, and concentrated organic and inorganic acids.

## GENERAL PROPERTIES

<b>Colour</b>	: Translucent
<b>Gloss Level</b>	: Semi Gloss
<b>Volume Solids, %</b>	: 100 % Reactive (~ 85 % of contents are convertible to solid)
<b>Specific Gravity</b>	: 1.05 kg/l (Mixed)
<b>Flash point</b>	: Base: 33°C Hardener: 57°C Mix: 33°C
<b>VOC</b>	: 429 g/L (EPA Method 24)

## COATING THICKNESS

### Basecoat (Base + Talcum Powder)

- One layer at 150 - 300 µm dry film (176 - 353 µm wet film)
- Theoretical coverage of 0.40 kg/m<sup>2</sup> at 300 µm DFT

### Laminate (Base saturated reinforced mat)

- Two layers chopped strand mat at 1600 - 1800 µm dry film (1882 - 2117 µm wet film)
- Theoretical coverage of 2.20 kg/m<sup>2</sup> at 1800 µm DFT
- A glassfiber surface mat with Base at 150 - 200 µm dry film (176 - 235 µm wet film)
- Theoretical coverage of 0.30 kg/m<sup>2</sup> at 200 µm DFT

### Topcoat (Base only)

- One or two layers at 75 - 100 µm dry film each (88 - 117 µm wet film each)
- Theoretical coverage of 0.30 kg/m<sup>2</sup> at 200 µm DFT
- Final coat with air dry agent

## 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

Abrasive blast cleaning to Sa 2½ (ISO 8501-1:2007) or SSPC-SP6. For optimum performance, blast cleaned to SSPC-SP10 with a surface profile of 75



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– 100 microns (3 – 4 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.

### Concrete

Abrasive blasting or scarification to remove laitance and surface contaminants is recommended. Concrete must be thoroughly cured and dry at time of application. It must be free of oils, curing solutions, dust and mold release agents. Use ASTM D 4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, re-test until dry.

### 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 relative humidity is above 80%.

The temperature of surface must be minimum 3°C above dew point of surrounding air. When surface temperatures exceed 35°C, Hi-Pon 80-12 should be overcoated as soon as hard-dry to avoid intercoat adhesion problems.

### APPLICATION GUIDE

<b>Mixing Ratio</b>	: Base : Accelerator : Hardener = 100 : 0.4 : 1.8 (by weight)
	Base and Accelerator should be mixed thoroughly before adding Hardener.
<b>Pot Life</b>	: 25°C                      35°C 30 minutes                  20 minutes (Pot life will vary substantially with temperature)
<b>Thinner</b>	: Do not thin
<b>Cleaner</b>	: Hi-Pon Vinyl Ester Thinner

### APPLICATION METHOD

Trowel is recommended for application of basecoat. Brush and roller are use for application of resin saturant and smoothing liquid. Care must be taken to achieve the specified dry film thickness.



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### APPLICATION DETAILS

<b>Drying Time</b>	: Substrate Temperature	25 °C	35 °C
	Surface Dry	1 hour 15 min	1 hour
	Through Dry	4 hours	3 hours
	Cured *	7 days	7 days
	Dry to recoat (min)*	4 hours	3 hours
	Dry to recoat (max)*	7 days	7 days

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

### RECOMMENDED PAINTING SYSTEM

The following paint system is recommended for Hi-Pon 80-12 Vinyl Ester Lining:

#### Primer:

- Hi-Pon 80-10 Vinyl Ester Steel Primer
- Hi-Pon 80-11 Vinyl Ester Concrete Primer

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

### PACKAGING

Base		Accelerator		Hardener	
Weight	Container Size	Weight	Container Size	Weight	Container Size
20 kg	20 L	0.08 kg	0.1 L	0.36 kg	0.5 L

### STORAGE

**Shelf life** : Base : 6 months (25°C)  
Accelerator : 6 months (25°C)  
Hardener : 6 months (25°C)

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. Recommended storage temperature range is 10°C - 15°C to prolong shelf life for Base only. Best practice would be to store them in separate locations.



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## 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.
- The accelerator should never be mixed directly with a peroxide catalyst (such as MEKP, BPO, etc). Mixing would cause a violent reaction, and a fire or explosion could result.
- If you have any doubt regarding the suitability of use, refer to Nippon Paint for further advice.

## DISCLAIMER

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