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.

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. Excellent resistance in both aliphatic and aromatic organic solvents, and concentrated organic and inorganic acids.

**GENERAL PROPERTIES**

- Colour: Translucent
- Gloss Level: Semi Gloss
- Volume Solids, %: 100 % Reactive (~ 85 % of contents are convertible to solid)
- Specific Gravity: 1.05 kg/l (Mixed)
- Flash point: Base: 33°C  Hardener: 57°C  Mix: 33°C
- VOC: 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/m² 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/m² 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/m² 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/m² 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
- 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.

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.

Mixing Ratio
: Base : Accelerator : Hardener = 100 : 0.4 : 1.8 (by weight)

Base and Accelerator should be mixed thoroughly before adding Hardener.

Pot Life
: 25°C 35°C
   30 minutes 20 minutes
   (Pot life will vary substantially with temperature)

Thinner
: Do not thin

Cleaner
: Hi-Pon Vinyl Ester Thinner

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.
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.

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.

<table>
<thead>
<tr>
<th>Base</th>
<th>Accelerator</th>
<th>Hardener</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Container Size</td>
<td>Weight</td>
</tr>
<tr>
<td>20 kg</td>
<td>20 L</td>
<td>0.08 kg</td>
</tr>
</tbody>
</table>

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.
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

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.