IMPETRANS

Liquid elastic polyurethane membrane

DESCRIPTION
One component liquid composition, after polymerization gives an elastomeric, cold-applied polyurethane membrane. The membrane cures in a continuous and elastic form, as a totally adhered layer. This waterproofing layer guarantees total watertightness and withstands building movements. Its aliphatic polyurethane composition provides UV stability, useful for Impermax, aromatic PU based topcoats, or light compositions provides UV aliphatic polyurethane building movements. Its watertightness and withstands guarantees total waterproofing layer as continuous and elastic form, The membrane cures in a polyurethane membrane. elastomeric, cold polymerization gives an composition, One component liquid

ADVANTAGES
- Clear, glossy topcoat.
- UV resistant
- Excellent adhesion.
- Crack-bridging capability
- Water resistant.
- Waterproof. Withstands permanent contact with water.
- Good chemical resistance (cleaning products).

CERTIFICATIONS
- Applus independent laboratory: Accelerated weathering test: Nº 06/32013329
- Applus independent laboratory: drinking water contact: Nº 07/320000006

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

Chemical description
Solvent borne single-component aromatic polyurethane

Physical state
Liquid

Packaging
Metal cans: 4/ 9 / 20 kg

Non-volatile content (%)
50%

Flash point
36ºC (ASTM D 93)

Available colour
Colourless or slightly yellow. It can be pigmented.

Density
0.96 g/cm3 (20ºC)

Viscosity
approximate Brookfield
150 mPa.s

VOC (g/L i %)
VOC class as per
2004/42/EC

INFORMATION ON THE FINAL PRODUCT

Chemical
Water
Salt water
Hydrochloric acid solutions
Sodium hydroxide
Acetone
Ethyl acetate
Xylene
Engine oil
Brake Fluid
Test conditions
24h, 25ºC
24h, 25ºC
200 g/l, 24h, 25ºC
40 g/l, 24h, 25ºC
24h, 25ºC
24h, 25ºC
24h, 25ºC
24h, 25ºC
24h, 25ºC
Result
5
5
1
5
1
3
5
5
2

TERMAL resistance
Stable up to 100ºC.

SUPPORT REQUIREMENTS
In order to achieve a good penetration and bonding, support must be:
1. Flat and levelled (Impermax is self-leveling).
2. Compact and cohesive (pull off test must show a minimum resistance of 1.4 N/mm2).
3. Even and regular surface.
4. Free from cracks and fissures. If any, they must be previously repaired.
5. Clean and dry, free of dust, loose particles, oils, organic residues or laitance.

RECOMMENDED ENVIRONMENTAL CONDITIONS
Support temperature should be between 0ºC and 40º. At higher temperatures, specific precautionary measures must be taken. Please follow manufacturer advice.

High moisture conditions can lead to bubble formation under the membrane surface.
In cold weather, or when curing time has to be shorter, accelerators can be used. More information under request.
On non-porous substrates, do not dilute first coat. Subsequent coats may damage the first one if too thin.

PREPARATION
It is necessary to prepare all critical spots. Consult application documents provided by Krypton Chemical.

MIXING
Stir gently before use with a low-speed stirrer. If necessary, dilute with up to 10% Solvent Rayston for viscosity adjustment. Note: on non-porous substrates, do not dilute the first coat. Subsequent coats may damage the first one if too thin.

APPLICATION GUIDELINES
Apply by roller, brush or airless spraying equipment. Although not strictly necessary, it is highly recommended use all the contents. If not, ensure total sealing of the remainder.
Note: some roller materials are damaged by the solvent. If in doubt, is recommended to test before use.

CURING TIME
Curing time is dependent on the environmental conditions. Curing rate increases with temperature and humidity rises. The following table gives a rough estimation of the curing time under diverse conditions for a 500 microns coat.
**IMPERTRANS**

Liquid elastic polyurethane membrane

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>RH (%)</th>
<th>Dry to touch (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>&gt;80</td>
</tr>
</tbody>
</table>

**RETURN TO SERVICE**

At usual conditions (25°C, 50% rh) the membrane achieves up to 90% of its final properties in 3 days. For light traffic, wait a minimum of 24 hours.

**CLEANING**

Liquid Impermax can be cleaned with Rayston Solvent, acetone and alcohols. Once hardened, it cannot be dissolved.

**CLEANING AND MAINTENANCE**

It may be necessary to reapply Impertrans layers if they are worn out due to traffic, weather, corrosion, etc.

For stain removal, a surface treatment with Rayston solvent or isopropyl alcohol may be attempted. Strong acids are totally inadequate. Some solvents may damage the membrane. If this happens, the affected area has to be cut and repaired with a new Impermax application.

**FAQ**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Question</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not cure</td>
<td>Suitable solvent?</td>
<td>Some thinning solvents are not suitable</td>
<td>Apply a second coat using only Rayston Solvent as a diluant</td>
</tr>
<tr>
<td></td>
<td>Too diluted</td>
<td>An excess of solvent slows the curing rate</td>
<td>Use less diluted product</td>
</tr>
<tr>
<td>Temperature?</td>
<td>Normal at low temperatures</td>
<td>Below 15°C use of accelerators is advised</td>
<td></td>
</tr>
<tr>
<td>Bubbles</td>
<td>Porous support?</td>
<td>High temperature</td>
<td>Wait until temperature drops and apply a first coat, diluted at less than 500 g/m2</td>
</tr>
</tbody>
</table>

**SAFETY**

Impertrans contains isocyanates and flammable solvents. Always follow the instructions provided in the material safety data sheet and take the precaution described there. As a general rule, suitable ventilation must be ensured and all ignition sources must be avoided. This product is intended to be used only for the uses and in the way here described. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses.

**ENVIRONMENTAL PRECAUTIONS**

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager. If there is some residual product in the containers, do not mix it with other substances without checking for possible dangerous reactions.

**OTHER INFORMATION**

The information contained in this DATA SHEET, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend to study deeply all information provided before proceeding to the use or application of any of our products, and strongly advise to conduct tests “on-site” in order to determine their convenience for a specific project.

Our recommendations do not exempt the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise. The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.

This data sheet supersedes previous versions.