Surface Primers
Polyurea Water Insulating
Polyurethane Water Insulating
Foam Injection Insulating

Bitumen-Polyurethane Insulating
Cement Based Insulating
Protective Top Coats & Paints
Sealents-Dilatation & Mastics

WATERPROOFING & WATER INSULATION PRODUCT CATALOG
COMPORATE OVERVIEW

With a staff of a highly professional dedicated to the field employees, situated at the top of the floor coating sector in Turkey, confident of being part of a family

With an entity that keeps a breast of the market development by continually monitoring the needs of installers and distributors and maintaining the on-going and close liaison with manufacturers.

With 25 years of an entity that is both producing and selling at the same time in which it has widely become well known among other competing commercial institutions due to its exporting domestically and abroad, Asian and European countries, in terms of product high quality, the reason behind its being distinguished itself amongst the market domain.

With a team of highly updated chemists who follow up with the latest product modifications along with progressive evaluation at our well-equipped laboratories according to the international standards (ISO)

Innova Polymer Chemicals, the symbol of uniqueness on the domain, product innovation and top-notch seeker through its depending on two principles:

Tradition of technology

As a leading chemical company in Turkey, Innova Polymers is eagerly committed to the development and research of innovative and profitable chemicals. This has been our tradition for more than one 25 years since the company was established. Standing on the solid foundation of a tradition of technology, we endeavor to create new and lasting technology to share with everyone throughout the world.

Partnership with people

Polimar believes that respect for people is a key to lead us along a successful path as a company that strongly recognizes its economic and social responsibilities. The partnerships with our customers, shareholders, business partners, communities, and our employees are crucial to realizing our mission to contribute for the betterment of society.

Product Range

- Parquet Chemicals Group
- Wall Paint Group
- Water Proofing Systems
- Industrial & Sport Flooring Systems
INNOPUR
Flooring and Waterproofing
## WATER PROOFING MATERIALS PRODUCT LIST (1)

### SURFACE PRIMERS

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR PRIMER EP AQUA</td>
<td>Two-component, water based, epoxy coating / primer</td>
</tr>
<tr>
<td>INNOPUR PRIMER EP UNIVERSAL</td>
<td>Two component, multi-functional epoxy primer for wet and humid surfaces.</td>
</tr>
<tr>
<td>INNOPUR PRIMER PU 100</td>
<td>One component, low viscosity polyurethane primer</td>
</tr>
<tr>
<td>INNOPUR PRIMER PU 150</td>
<td>One component low viscosity, polyurethane based primer</td>
</tr>
<tr>
<td>INNOPUR PRIMER PU MICRO</td>
<td>Concrete sealer, for both porous &amp; non-porous substrates, and both dry &amp; wet concrete</td>
</tr>
<tr>
<td>INNOPUR PRIMER PU UNIVERSAL</td>
<td>One component, low viscosity, 100% aliphatic polyurethane based primer</td>
</tr>
<tr>
<td>INNOPUR PRIMER MICRO</td>
<td>Two component, solvent-free polyurethane based primer.</td>
</tr>
<tr>
<td>INNOPUR PRIMER TRANS</td>
<td>Two component, non staining primer for non porous substrates</td>
</tr>
</tbody>
</table>

### BITUMEN- POLYURETHANE WATERPROOFING

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR BITUMEN AQUA 1K</td>
<td>One component, bitumen-rubber based liquid membran waterproofing material</td>
</tr>
<tr>
<td>INNOPUR BITUMEN AQUA 2K</td>
<td>Two component, bitumen-rubber based liquid membran waterproofing material</td>
</tr>
<tr>
<td>INNOPUR BITUMEN PU 1K</td>
<td>One component, polyurethane - bitumen based liquid membrane for flashing, waterproofing</td>
</tr>
<tr>
<td>INNOPUR BITUMEN PU 2K</td>
<td>Two component, polyurethane - bitumen based liquid membrane for flashing, waterproofing</td>
</tr>
<tr>
<td>INNOPUR BITUMEN PU THIX</td>
<td>Two component, polyurethane-bitumen based dilatation filler for</td>
</tr>
</tbody>
</table>

### POLYURETHANE WATERPROOFING

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR PROOF PU 300 1K</td>
<td>One component polyurethane based,%300 elongation, non yellowing liquid waterproofing</td>
</tr>
<tr>
<td>INNOPUR PROOF PU 300 2K</td>
<td>One component polyurethane based,%300 elongation, non yellowing liquid waterproofing</td>
</tr>
<tr>
<td>INNOPUR PROOF PU 400 1K</td>
<td>One component polyurethane based,%400 elongation, non yellowing liquid waterproofing</td>
</tr>
<tr>
<td>INNOPUR PROOF PU 500 1K</td>
<td>One component polyurethane based,%500 elongation, non yellowing liquid waterproofing</td>
</tr>
<tr>
<td>INNOPUR PROOF PU 750 1K</td>
<td>One component polyurethane based,%750 elongation, non yellowing liquid waterproofing</td>
</tr>
<tr>
<td>INNOPUR PROOF PU WTF 2K</td>
<td>Two component, solvent-less, polyurethane coating for flashing and tank waterproofing</td>
</tr>
</tbody>
</table>

### POLYUREA SPRAY WATERPROOFING

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR POLYUREA SF</td>
<td>Two component Pure polyurea system, 100% solid, fast curing, developed for waterproofing</td>
</tr>
<tr>
<td>INNOPUR POLYUREA HB</td>
<td>Two component Hybrid polyurea system, 100% solid, fast curing, developed for waterproofing</td>
</tr>
<tr>
<td>INNOPUR POLYUREA COLD</td>
<td>Two component polyurethane based ,cold curing polyurea improved for waterproofing</td>
</tr>
<tr>
<td>INNOPUR POLYUREA TRANS</td>
<td>Two component polyurethane based ,cold curing transparent polyurea for waterproofing</td>
</tr>
</tbody>
</table>
# WATER PROOFING MATERIALS PRODUCT LIST (2)

## PROTECTIVE TOP COATS & PAINTS WATERPROOFING

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR FLOOR CLR 1K</td>
<td>One component, transparent, glossy, aliphatic, polyurethane liquid membrane</td>
</tr>
<tr>
<td>INNOPUR FLOOR CLR 2K</td>
<td>Two component, 100% solids, full aliphatic, polyurethane top coat / paint</td>
</tr>
<tr>
<td>INNOPUR FLOOR CLR-G 1K</td>
<td>One component, colored, glossy, aliphatic, elastic polyurethane liquid membrane.</td>
</tr>
<tr>
<td>INNOPUR FLOOR P 1K</td>
<td>One component polyurethane paint for waterproofing &amp; protection</td>
</tr>
<tr>
<td>INNOPUR FLOOR P 2K</td>
<td>Two component, moderately elastic polyurethane paint for sealing, waterproofing &amp; flooring</td>
</tr>
<tr>
<td>INNOPUR FLOOR PU 2K</td>
<td>Two component, self levelling, solvent free, 100% resin polyurethane flooring material</td>
</tr>
<tr>
<td>INNOPUR FLOOR PU FINISH SATIN</td>
<td>One component, low viscosity, transparent, aliphatic pu liquid membrane for satin finish</td>
</tr>
<tr>
<td>INNOPUR FLOOR TRANS</td>
<td>One component, transparent, full aliphatic, polyurethane liquid membrane for waterproofing</td>
</tr>
</tbody>
</table>

## CEMENT BASED WATER INSULATION AND SHRINKAGE CRACKERS BARRIER SYSTEMS

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR SEAL 100</td>
<td>Two component, cement-based, full elastic waterproofing material</td>
</tr>
<tr>
<td>INNOPUR SEAL 200</td>
<td>Two component, cement-based, semi-elastic waterproofing material</td>
</tr>
<tr>
<td>INNOPUR SEAL 300</td>
<td>One component, cement-based, effective capillary crystalline waterproofing materials</td>
</tr>
<tr>
<td>INNOPUR SEAL 400</td>
<td>Two component, cement-polymer dispersion based waterproofing material</td>
</tr>
</tbody>
</table>

## CRACK SEALENTS-DILATATION & MASTICS

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR FLEX PU 100</td>
<td>One component, polyurethane elastomer thixotropic medium modulus sealant material</td>
</tr>
<tr>
<td>INNOPUR FLEX PU 200</td>
<td>Two component, polyurethane based, liquid sealent material for large horizontal cracks</td>
</tr>
<tr>
<td>INNOPUR FLEX PU 300</td>
<td>Two component, polyurethane jet fuel resistant crack sealent material</td>
</tr>
<tr>
<td>INNOPUR BONDIT</td>
<td>One component, cement barrier for polymer dispersion shrinkage cracks system</td>
</tr>
<tr>
<td>NOVASEL</td>
<td>One component, silicone-based mastic (310 ml)</td>
</tr>
<tr>
<td>INNOPUR GROUT</td>
<td>Cement based highly resistant grout mortar</td>
</tr>
</tbody>
</table>

## FOAM INJECTION WATERPROOFING

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR FOAM 10 ( ENJECTION )</td>
<td>One component, flexible polyurethane foam, one component, low viscosity, injection resin.</td>
</tr>
<tr>
<td>INNOPUR SEALENT FOAM</td>
<td>One component, moisture-curing and self-expanding aerosol polyurethane foam</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER EP AQUA

Two-component, water based, epoxy coating / primer

DESCRIPTION
INNOPUR AQUA PRIMER is a two-component, water based, epoxy coating. It has a track record of more than 20 years of successful use as primer for the INNOPUR line of products, as well as other INNOVA POLYMER CHEMICAL polyurethane based products.

RECOMMENDED FOR
Use as:

- Primer in applications with rising humidity / negative pressure (tanks, pools, foundations etc.),
- primer for other systems, e.g. epoxy or polyurethane based, cementitious,
- sealing coat for concrete,
- adhesive layer between old and new concrete,
- water / humidity barrier.

FEATURES & BENEFITS

- Highly effective water/humidity barrier.
- Easy application (water based).
- Low-odor, safe and non-flammable (zero VOC).
- Suitable for application in closed spaces.
- Easy clean-up.
- Strong adhesion even on damp or green concrete. Also on iron, galvanized steel, aluminium, glass and wood.
- Good mechanical properties and abrasion resistance.

APPLICATION PROCEDURE

Mixing:
Mix the two components well. Add water 10- 30%. Stir manually or using a low speed (300 rpm) mixer.

Application:

- As primer – Application in thin coats only. Apply with roller in one or two coats with total consumption of 150 gr/m2
- As water/humidity barrier – Apply with roller in three coats with total consumption of 600 gr/m2
- Recoat time cannot be determined in terms of hours since it is highly dependent on weather conditions: It can be as low as 5 hours during summer and as high as 24 hours during winter. Use the following rule of thumb to determine when recoating should take place. Recoat (with AQUA or INNOPUR ) once the colour on the current coat goes from milky white to transparent. Also check that the current coat has hardened to the degree where it can no longer be punctured by finger nail.
- Do not exceed the stated consumption numbers as this will affect adversely its adhesion and durability.
- Pot life of mixture is 1 hour maximum at 25 °C.
- Do not apply when temperature is below 10 °C.
- Hot concrete should be wetted before application.

CONSUMPTION

- As primer – Apply in one or two thin coats with total consumption of 150 gr/m2.
- As water/humidity barrier – Apply in three coats with total consumption of 600 gr/m2.

CLEANING

Clean tools and equipment first with paper and then using SOLVENT. Under no circumstances should they be re-used to mix/apply polyurethane products.
PACKAGING

Transparent: 4 kg (1 + 3 kg) and 10 kg (2.5 + 7.5 kg). White: 5 kg (1 + 4 kg) and 10 kg (2 + 8 kg). Other colours available on request.

TECHNICAL SPECIFICATIONS

In liquid form (before application, after mixing): Component A – colourless. Component B – transparent or coloured (as required). (In transparent, the mixture becomes white but, when fully cured, membrane is transparent again.)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>3,500</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>1.0</td>
</tr>
<tr>
<td>Mixing ratio of transparent</td>
<td>A:B, by weight</td>
<td>-</td>
<td>1:3</td>
</tr>
<tr>
<td>Mixing ratio of coloured</td>
<td>A:B, by weight</td>
<td>-</td>
<td>1:4</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25 oC) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>5-6</td>
</tr>
<tr>
<td>Full cure</td>
<td>days</td>
<td>-</td>
<td>7</td>
</tr>
</tbody>
</table>

In cured form (after application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>10-40</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m². 24hr</td>
<td>EN ISO 7783-2</td>
<td>3.9 Class III (Low, &lt; 15)</td>
</tr>
<tr>
<td>Water transmission</td>
<td>kg/m².hr.0.5</td>
<td>NF EN 1062-3</td>
<td>0.003-0.006 Class III (Low, &lt; 0.1)</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>kg/cm² (N/mm²)</td>
<td>ASTM 4541</td>
<td>&gt; 30 (&gt; 3)</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER EP UNIVERSAL

Two component, multi-functional epoxy primer for wet and humid surfaces.

Product Description
It is an epoxy resin-based, two-component, solvent-free, transparent sealer of low viscosity.

Uses
- As primer layer for polyurethane materials in wet weather conditions;
- As primer layer before polyurea application;
- As primer layer before application of epoxy polyurethane top-coats on the concrete, cement or epoxy mortars for floors subject to medium to heavy load;
- As concrete primer to wet the concrete surface and provide a good adhesion bridge before top-coats of epoxy mortar, epoxy self-leveling screed, epoxy-laminate or epoxy/polyurethane;
- As binder for preparation of level stabilization, repair and improvement mortar;
- As binder for preparation of epoxy mortar to obtain a thickness of 5 – 8 mm;
- For repair of big cracks and form of chamfering by mixing with silica sand or different fills;
- As primer layer before polyurethane foam application.

Advantages
- Low viscosity and resilient structure.
- High wetting capability.

Application
Surface Preparation
Application surface should be free of any damages. Surface should have compression strength of minimum 25N/mm² and pull-off test result of minimum 1.5 N/mm². It should be free of any loose and friable particles, oil and paint leftovers and cement grout. Wide cracks and defects should be repaired beforehand. Any cement shell and bright screed on the concrete surface should be cleaned up by equipment such as sandblasting machine, hacking machine, wiping machine with diamond drum and impact grinding machine and it should then be roughened and wiped. Remove all dust from the surface by using industrial type vacuum cleaner. Concrete surfaces in contact with the soil to be coated should be previously treated with water and water vapor sealants.

Application Conditions
Relative humidity of the air should be 90% maximum and the application (ambient and surface) temperature should be between 5 and 35°C.

In case it is applied outdoors, it should not be rainy 24 hours before and after and during the application.

Surface temperature should be 3°C above the then dew point. (Please call our firm for the ambient temperature-ambient moisture-dew point table.)

Mixing Procedure
It is a two-component product and it should, therefore, be prepared at the mix ratio specified for the quantity to be used, taking into consideration the pot life. For a homogenous mixture, make sure that the product temperature should not be less than 15°C. Component A should be stirred by itself by use of a mechanical mixer quickly and then the hardener (Component B) should be added, taking care of the mix ratio. Components A and B should be stirred for minimum 3 minutes until you have a homogenous mixture.

Surface Application
When ready for application, the product is applied by roller or airless spray until the surface is saturated well and pores are closed. Time for over coating is minimum 12 hours (20°C) and maximum 10 days. It is very important that the second coat should be applied within the time for over coating specified above. It reaches to a full mechanical and chemical strength in about 7 days.

Storage
Store the product in a cool and dry place. Shelf life of the product is 1 year for Components A and B when stored properly in the original container unopened.

Safety Measures
Refer to Material Safety Data Sheet prepared as per the related EU directives before use.

Adequate ventilation is required. Hands and eyes must be protected with gloves and protective glasses. Case of eye contact, rinse eyes with plenty of water for the material and consult a doctor immediately.

NOTE: Keep out of reach of children.
Technical Specifications

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Transparent</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Density</td>
<td>1.1 ± 0.05 kg/l (A+B)</td>
</tr>
<tr>
<td>Mix Ratio</td>
<td>2.5:1 (A:B – by weight)</td>
</tr>
<tr>
<td>Solids by volume</td>
<td>100% (A+B)</td>
</tr>
<tr>
<td>Pot Life (+10°C)</td>
<td>80 minutes</td>
</tr>
<tr>
<td>(+30°C)</td>
<td>25 minutes</td>
</tr>
<tr>
<td>Wait Time Between Coats</td>
<td>12 hours /at 20°C</td>
</tr>
<tr>
<td>Ready for Light Traffic</td>
<td>24 hours / at 20°C</td>
</tr>
<tr>
<td>Full Cure</td>
<td>7 days / at 20°C</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER PU 100

One component, low viscosity polyurethane primer

DESCRIPTION:
INNOPUR PRIMER PU 100, is a one component low viscosity polyurethane fluid that cures with the humidity in the atmosphere. It is especially designed to enhance the adhesion of polyurethane high solids products on porous substrates. INNOPUR PRIMER PU 100 is ideal for protection of metal structures against corrosion.

RECOMMENDED FOR:
- Priming of porous substrates:
- Porous Concrete
- Plaster
- Wood
- Concrete sealing

CONSUMPTION:
Maximum Total Consumption: 0.150 kg/m².

CLEANING:
Clean tools and equipment first with paper towels and then wipe by using Solvent. Do not try to clean brushes it is not worthwhile.

PACKAGING:
20Lt, 5Lt and 1Lt.

SHELF LIFE:
INNOPUR PRIMER PU 100, is a can be kept for minimum 12 months in the original unopened pails at a temperature of 5 °C - 25 °C in dry places. When you open a pail try to use it immediately.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity [BROOKFIELD]</td>
<td>cP</td>
<td>ASTM D2196-86, at 25°C</td>
<td>100</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, at 20°C</td>
<td>0.98</td>
</tr>
<tr>
<td>Tack free time, at 77deg F (25°C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>5-6</td>
</tr>
<tr>
<td>Flash Point</td>
<td>°C</td>
<td>ASTM D93, Closed cup</td>
<td>28</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER PU 150

One component low viscosity, polyurethane based primer / concrete sealer, for both porous & non-porous substrates, and both dry & wet concrete

DESCRIPTION:

INNOPUR PRIMER PU 150, is a one component, low viscosity, polyurethane based primer suitable for many different substrates. It is characterised by its very low viscosity and balanced curing speed which result in excellent wetting, impregnation and paint-over time on different substrates, whether of high, low or no porosity (e.g. glass and metals). Additionally, it can be effectively used on both dry and wet concrete, even green concrete, not only as primer but also as a low-cost sealing solution, increasing, thus, the durability of the substrate. The cured film displays outstanding mechanical properties: Its elongation is >300%, and its tensile strength surpasses 30 N/mm². Apply with brush or roller. Consumption: 100-200gr/m², subject to substrate porosity.

RECOMMENDED FOR:

To be used as primer for:

- Concrete structures (Humid, damp or wet concrete)
- Ceramic tiles,
- Non-porous substrates like glass, marble & metals. Also, for use as concrete sealer.

FEATURES & BENEFITS

- One component.
- Of low viscosity.
- Easily applicable, even on wet concrete.
- Adheres strongly, even on glassy, non-porous substrates.
- Excellent wetting, impregnation and paint-over time.
- Elastic.
- Many pigment pastes available.
- A low-cost solution for concrete sealing & protection.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. If there are surface irregularities, we recommend charging INNOPUR PRIMER PU 150 with sand.

Apply with brush or roller. Once cured, the main membrane (e.g. INNOPUR System) can be applied.

CLEANING

Clean tools and equipment first with paper and then using SOLVENT. Rollers will not be reusable.

PACKAGING

1 Lt, 5 Lt, 20 Lt.

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.
## TECHNICAL SPECIFICATIONS

### In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86 @ 25 °C</td>
<td>45-50</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811 @ 20°C</td>
<td>0.9-1</td>
</tr>
</tbody>
</table>

### In cured form (after application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength at break @ 23 °C</td>
<td>Kg/cm² (N/mm²)</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>300 (30)</td>
</tr>
<tr>
<td>Elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 300</td>
</tr>
<tr>
<td>Application of main membrane</td>
<td>hours</td>
<td>-</td>
<td>12-24</td>
</tr>
<tr>
<td>Adhesion to cement</td>
<td>mPa</td>
<td>ASTM D1640</td>
<td>&gt; 4</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER PU MICRO

One component, low viscosity, 100% aliphatic polyurethane based primer suitable for all substrates

DESCRIPTION

INNOPUR PRIMER PU MICRO, is a one component, low viscosity, 100% aliphatic polyurethane based primer suitable for all substrates.

It is characterised by its very low viscosity, excellent impregnation, non-yellowing (non-staining) properties combined with a relatively fast cure speed and most importantly its excellent adhesion on both non-porous and porous substrates. The cured film displays good mechanical properties: Its elongation is >50%, and its tensile strength surpasses 40 N/mm².

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. On non porous surfaces use HCl acid or/and Viacal. Apply with brush or roller depending on the surface to be primed at a consumption of 50-200 gr/m². Ensure primer has cured before applying main membrane/sealant.

CLEANING

Clean tools and equipment first with paper and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

17 Kg

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25°C. Once opened, use as soon as possible.

FEATURES & BENEFITS

- 100% Aliphatic Polyurethane: No yellowing.
- One component.
- Of low viscosity
- Relatively quick curing
- Adheres strongly, even on glassy, non-porous substrates.
- Excellent wetting, impregnation and paint-over time.
- Many pigment pastes available

RECOMMENDED FOR

To be used as primer for:
- INNOPUR FLEX, Sealants when a non staining primer is required
- ceramic tiles,
- non-porous substrates like glass, marble & metals.
- Also, for use as concrete sealer
TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86 @ 25 ºC</td>
<td>20</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO</td>
<td>0.9-0.95</td>
</tr>
</tbody>
</table>

In cured form (after application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength at 0°C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>400 (40)</td>
</tr>
<tr>
<td>Elongation @ 23 ºC</td>
<td>%</td>
<td>DIN 52455 / EN-ISO-527-3</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Application of main</td>
<td>hours</td>
<td>-</td>
<td>12-24</td>
</tr>
<tr>
<td>Adhesion to cement</td>
<td>mPa</td>
<td>ASTM D1640</td>
<td>&gt;4</td>
</tr>
</tbody>
</table>
INNOPUR PRIMER PU UNIVERSAL

Two component, solvent-free polyurethane based primer.

**Description**

Two-component, solvent-free primer. Polyurethane-based products have been developed for. Cured in a short time and does not contain toxic substances (zero VOC / Volatile Organic Compounds). For polyurethane-based products it is designed specially in order to improve adhesion on the surfaces of the moist or wet concrete.

**Uses**

- Damp, humid concrete
- Damp or wet concrete
- Not well ventilated environments
- Asphalt and asphalt membranes
- Water tanks are made of concrete, steel or other materials

**Features/Benefits**

- Excellent adhesion to almost any type of surface,
- Does not contain solvents that can easily be used in
- Non-ventilated environment,
- There is a very high hydrophobic and hydrolysis resistance
- Wide temperature range performs. Curing at low temperature and even under water films.
- Provide effectively resistance against chemicals
- Can be used to fill and paste geotextile.

**Packaging**

A set of 15 kg INNOPUR PRIMER PU UNIVERSAL, consists of 9 kg of component A in the metal pail and 6 kg of component B in the metal pail.

**Shelf Life & Storage**

Store the product in a cool and dry place. Shelf life of the product is 1 year for Components A and B when stored properly in the original container unopened. The pot life of two components is 30min at 20 °C. To extend the pot life; Keep a mixture of container away from the sun and keep it in a cool environment. Mixed product is poured to the floor for relaxation first, after spring and mixed product is poured into separate wide and shallow container.

**Application**

**Surface Preparation:**

The surface should be cleaned using pressurized water if possible; oil, grease, fuel and paraffin waste should be removed, mold release agents, cement residues, sawdust, loose particles and curing membranes must be removed. Surface defects and cracks must be repaired by filling with suitable products. Please fill surface defects by intensifying products with sands.

**Preparation of the mixture:**

It is a two-component product and it should, therefore, be prepared at the mix ratio specified for the quantity to be used, taking into consideration the pot life. For a homogenous mixture, make sure that the product temperature should not be less than 15°C. A and B components until homogenous, minimum of 3 minutes at low speed (300 rev / min) stir with mixer. The prepared mixture should be consumed at the pot life.

In open environments to reduce consumption and to prolong the pot life, material can dilute with thinner polyurethane in open space. When priming wet surfaces or water films, never thinning your product. In hot environments, to extend the pot life, pour the product into a large, shallow bowl.

**Surface Application**

When ready for application, the product is applied by roller or airless spray until the surface is saturated well and pores are closed. Apply of the main layers after curing.
Technical Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>A: Liquid, B: Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>A: Transparent, B: Dark brown</td>
</tr>
<tr>
<td>Density</td>
<td>A: 1.0, B: 1.2± 0.05 gr/cm³ 20°C</td>
</tr>
<tr>
<td>Mixing ratio</td>
<td>1.5:1 (A:B – weight)</td>
</tr>
<tr>
<td>Solids by volume</td>
<td>%100 (A+B)</td>
</tr>
<tr>
<td>Pot Life (+25°C)</td>
<td>20-30 minute</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>-40 to 90 °C</td>
</tr>
<tr>
<td>Wet Concrete</td>
<td>&gt;4 mPa Concrete deterioration</td>
</tr>
<tr>
<td>Marble</td>
<td>&gt;4 mPa Marble deterioration</td>
</tr>
<tr>
<td>Galvanized Steel</td>
<td>&gt;4 mPa</td>
</tr>
</tbody>
</table>

Properties determined at laboratory conditions.
INNOPUR PRIMER TRANS

Two Component, Non Staining Primer for Non Porous Substrates

DESCRIPTION
INNOPUR PRIMER TRANS, is one component, colorless, non-staining primer especially designed to secure the adhesion of INNOPUR FLOOR TRANS on non-porous substrates. Although designed for INNOPUR FLOOR TRANS, it is fully suited for all products in the INNOPUR product range.

Chemically, INNOPUR PRIMER TRANS, is a composed of a moisture reacting organosilane in a mixture of solvents and additives to ensure overall wetting of the substrate. INNOPUR PRIMER TRANS is easily applied by wetting a clean cloth and essentially cleaning the surface to be protected with INNOPUR FLOOR TRANS.

INNOPUR PRIMER TRANS dries quickly, within 10-15 max, the surface is ready for application.

RECOMMENDED FOR
✓ Glassy tiles
✓ Glass
✓ Slightly porous marble

FEATURES & BENEFITS
✓ Quick drying.
✓ No thinning is required
✓ Non-Staining.
✓ Easy application

PACKAGING
20Lt, 5lt, 1lt

PRECAUTIONS
INNOPUR PRIMER TRANS contains volatile flammable Solvenin well-ventilated areas. Don’t smoke. Apply from naked flames. In closed areas use force vand carbon active masks. Keep in mind that so heavier than air so they creep on the floor.

SURFACE PREPARATION
Clean the surface, using jet water if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, curing membranes must be removed. Fill surface irregularities with adequate products. Apply the material with cloth as cleaning the surface. Allow 10-15 min for drying and subsequently apply INNOPUR FLOOR TRANS.

TECHNICAL SPECIFICATIONS

The Liquid product:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (BROOKFIELD)</td>
<td>cP</td>
<td>ASTM D2196-86, at 25°C</td>
<td>40</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, at 20°C</td>
<td>0.83</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, Closed cup</td>
<td>42</td>
</tr>
<tr>
<td>Dry time at 77deg F (25°C) &amp; 55% RH</td>
<td>min</td>
<td>-</td>
<td>10-15</td>
</tr>
</tbody>
</table>
INNOPUR BITUMEN AQUA 1K

One component, bitumen-rubber based liquid membran waterproofing material

DESCRIPTION

INNOPUR BITUMEN AQUA 1K, is a bitumen-rubber based, ready to use, single component liquid membrane with elastomeric additives, and it is used for insulating water and humidity. By the evaporation of the water it contains, it adheres firmly to the surface it is applied, forming an elastic waterproof layer.

Usage Areas

- It can be used on all horizontal and vertical surfaces.
- It is used for the insulation of foundations, underground storehouses, and basements.
- It is used for insulating water leakages in closed damp environments such as bathrooms, kitchens, toilets, etc.
- For the applications requiring durability against higher water pressure, and on cracked surfaces, it must be reinforced with materials such as polyester felt, reinforcing fabric, etc.
- The alum material obtained by mixing INNOPUR BITUMEN AQUA 1K with sieved fine sand and cement is applied with a trowel to smooth out and level the surface, or to provide a protective coat over insulation.

Advantages

- It can be easily applied by anyone.
- It provides a seamless insulation layer.
- As a water-based material it is environment friendly.
- Due to its inflammable and non-toxic characteristics it can be safely used in closed spaces.
- Because it contains water, it enables good adhesion even when the surface is moist.
- It provides permanent elasticity.
- It is ready to use.
- As a cold applied material, it does not require heating or thinning.
- It can cover capillary cracks.

Application

- As a cold applied, prepared material, INNOPUR BITUMEN AQUA 1K should not be used with thinner.
- It can be applied with a bitumen brush, or trowel.
- Depending on weather conditions, it dries in approximately 4-5 hours.
- It should not be applied in rainy weather, and at temperatures below +5°C.
- Each coat must be applied only after the preceding one is completely dry.

Consumption

1 kg/m² for each coat (with trowel)

Packaging

23 kg Pail - 33 Pieces / Pallet
INNOPUR BITUMEN AQUA 2K

Two component, bitumen-rubber based liquid membran waterproofing material

Description

INNOPUR BITUMEN AQUA 2K, is a bitumen-rubber based, cement polymer modified, double-component liquid membrane. It dries fast. Its elasticity and tensile strength is highly improved with fibre and other additives. By the evaporation of the water it contains, it adheres firmly to the surface it is applied, forming an elastic waterproof layer.

Usage Areas

INNOPUR BITUMEN AQUA 2K, is used on all horizontal and vertical surfaces for the exterior insulation of foundations, underground storehouses and basements, and for insulating water leakages in closed damp environments such as bathrooms, kitchens, toilets, etc.

For the applications requiring durability against higher water pressure, and on cracked surfaces, it must be reinforced with materials such as polyester felt, reinforcing fabric, etc.

Application

✓ INNOPUR BITUMEN AQUA 2K, is a cold applied material.
✓ Powder component in the bag is poured into liquid component and they are mixed by using a low speed mixer until no lump remains.
✓ The mixture is applied with a trowel and bitumen brush.
✓ Depending on weather conditions, it dries in approximately 1 - 2 hours.
✓ It can be applied on moist surfaces, but not on wet surfaces.
✓ It should not be applied in rainy weather, or at temperatures below +5°C.
✓ Each coat must be applied only after the preceding one is completely dry.

Advantages

✓ It provides a seamless insulation layer.
✓ As a water-based material, it is environment friendly.
✓ Due to its inflammable and non-toxic characteristics it can be safely used in closed spaces.
✓ Because it contains water, it enables good adhesion even when the surface is moist.
✓ It provides permanent elasticity.
✓ It covers capillary cracks.
✓ As a cold applied material, it does not require heating, and thinning.

Surface Preparation

✓ Pointed tips and corners must be bevelled.
✓ The surface to be treated must be free from dust, dirt, rust and grease; loose particles must be scraped off.

Consumption

1.5 kg/m² for each coat (with trowel) min. 2 coats.

Packaging

22 kg bituminous emulsion
8 kg powder component = 30kg Set - 12 Sets / Pallet
INNOPUR BITUMEN PU 1K
One component, polyurethane - bitumen based liquid membrane for flashing, waterproofing & protection

DESCRIPTION
INNOPUR BITUMEN PU 1K, is a quick-curing, one component, thixotropic, bitumen-extended polyurethane fluid. It produces a hydrophobic, elastic membrane with very strong adhesion to most types of substrates, as well as bituminous, and excellent mechanical and chemical resistance properties. It is ideal for application on vertical surfaces: No running, no bubbling. It is based on pure elastomeric hydrophobic polyurethane resin and is extended with chemically polymerised virgin bitumen. Apply with brush or spatula.

Total consumption: 1.5 kg/m² (or 1.5 lt/m²) in two coats.

RECOMMENDED FOR
Waterproofing and protection of:
- Gypsum and cement boards,
- Asphalt membranes (for repair also),
- Cementitious substrates,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Basements,
- Foundations,
- Closed spaces with high humidity.

FEATURES & BENEFITS
- Thixotropic: Easily applied on vertical surfaces and complex shapes without running or bubbling.
- Fast curing.
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- No thinning is required but SOLVENT may be used.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 150 °C.
- Resistance in the cold: The film remains elastic even down to -40 °C.
- Outstanding mechanical properties, high elongation, tensile and tear strength, high abrasion resistance.
- Excellent chemical resistance.

APPLICATION PREREQUISITES
INNOPUR BITUMEN PU 1K, has excellent adhesion to most types of substrates, as well as bituminous, without the use of primers. Nevertheless, testing before use is strongly advised. Please contact our technical department for further information.

Concrete substrate conditions (standard):
- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates:
Please refer to the Primer Selection Table.

APPLICATION PROCEDURE
Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Application:
Apply with brush or spatula.

CONSUMPTION
Total consumption: 1.5 kg/m² (or 1.5 lt/m²) in two coats.

CLEANING
Clean tools and equipment first with paper towels and then using SOLVENT.

PACKAGING
4 kg and 20 kg

SHELF LIFE
Can be kept for 6 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.
SAFETY INFORMATION

Contains a small quantity of volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

TECHNICAL SPECIFICATIONS:

In liquid form (before application):

~85% dry matter in Xylene.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>40,000 – 50,000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>-1</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25°C) &amp; 55% RH</td>
<td>hours</td>
<td></td>
<td>0.5-1</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td></td>
<td>3-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td></td>
<td>-40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>40</td>
</tr>
<tr>
<td>Tensile strength at break @23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>50 (5)</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 600</td>
</tr>
<tr>
<td>QUV Accelerated Weathering Test [4hr UV, @60 °C [UVB-Lamps] &amp; 4hr COND @ 50 °C]</td>
<td>-</td>
<td>ASTM G53</td>
<td>Passed (1000 hours)</td>
</tr>
<tr>
<td>Chemical resistance (Sodium Hypochlorite NaOCl 5% 10 days)</td>
<td>-</td>
<td>-</td>
<td>Unaffected</td>
</tr>
<tr>
<td>Hydrolysis resistance (Potassium Hydroxide 8% 10 days @ 50 °C)</td>
<td>-</td>
<td>-</td>
<td>Unaffected</td>
</tr>
<tr>
<td>H2O absorption (10 days)</td>
<td>-</td>
<td>-</td>
<td>&lt; 0.9%</td>
</tr>
</tbody>
</table>
INNOPUR BITUMEN PU 2K

Two component, polyurethane - bitumen based liquid membrane for flashing, waterproofing & protection

DESCRIPTION

INNOPUR BITUMEN PU 2K is a fast-curing, two-component, bitumen-extended polyurethane fluid. It produces a highly elastic membrane with strong adhesion to many types of surfaces and excellent mechanical and chemical resistance properties. It is based on a pure elastomeric hydrophobic polyurethane resin extended with chemically polymerised virgin bitumen. Apply with brush, roller, spatula or airless spraying. Minimum consumption: 1.0 - 1.5 lt/m2.

RECOMMENDED FOR

Waterproofing and protection of:

✓ Gypsum and cement boards,
✓ Polyurethane insulation foams,
✓ Asphalt membranes,
✓ EPDM membranes,
✓ Bathrooms (under tiles),
✓ Verandas and balconies (under tiles),
✓ Flower pots and roof-top gardens,
✓ Light roofing made of metal or fibrous cement,
✓ Non-porous water tanks,
✓ Basements,
✓ Foundations,
✓ Bridge platforms,
✓ “cut-and-cover” tunnels,
✓ Irrigation channels.

FEATURES & BENEFITS

✓ Components easily mixed, 1:1 by volume,
✓ Fast curing,
✓ Thick, bubble-free, membrane possible,
✓ Being a two-component product means that the quantities not mixed can be stored for later use,
✓ Its low modulus gives it excellent substrate crack-bridging properties,
✓ Excellent adhesion on almost any surface, with or without the use of special primers,
✓ No thinning is required but SOLVENT may be used,
✓ Excellent thermal resistance, the product never turns soft. Max service temperature 80°C, max shock temperature 200°C,
✓ Resistance in the cold: The film remains elastic even down to -40°C,
✓ Excellent mechanical properties, high elongation, tensile and tear strength, high abrasion resistance,
✓ Good chemical resistance,
✓ Good water vapor barrier properties.

Can also be used as a joint sealant.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

✓ Hardness: R28 = 15Mpa.
✓ Humidity: W < 10%.
✓ Temperature: 5-35°C.
✓ Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Please refer to the Primer Selection Table.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed.

Priming:

Choose primer from the Primer Selection Table and follow the application instructions given on its prospectus.

MIXING

Mix equal volumes of the two components manually or with a low speed (300 rpm) mixer. Apply mixed quantities immediately. Pot life (of mix): 30-45 mins at 20°C. For application by airless spraying, the mix may have to be thinned with a small quantity of SOLVENT, especially for low-power applicators.

Crack bridging:

Apply INNOPUR BITUMEN 2K or INNOPUR BITUMEN 1K locally over any cracks larger than 1 mm before the main coat.

Application:

Apply the material with brush, roller or spatula.

CONSUMPTION

Minimum consumption: 1.0-1.5 lt/m2.
CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

2x5 lt, 2x20 lt and 2x200 lt.

SHELF TIME:

Can be kept for 12 months minimum in the original unopened pails in dry places and at o temperatures of 5-25 °C. Cap tins air tightly in order to store unused quantities.

PRECAUTIONS

Contains a small quantity of volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield) Comp. A:</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>1300</td>
</tr>
<tr>
<td>Comp. B: Asphaltic mix</td>
<td></td>
<td></td>
<td>4300</td>
</tr>
<tr>
<td>Viscosity (Brookfield) of the</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>3000</td>
</tr>
<tr>
<td>mixture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific weight of the mixture</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>0.98</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 40</td>
</tr>
<tr>
<td>Tack-free time, @ 77 °F (25 °C)</td>
<td>hours</td>
<td>-</td>
<td>1-2</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>150</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>35</td>
</tr>
<tr>
<td>Tensile strength at break @ 23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt;20</td>
</tr>
<tr>
<td>(N/mm²)</td>
<td></td>
<td></td>
<td>&gt;12</td>
</tr>
<tr>
<td>Percent elongation @ 23°C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 1000</td>
</tr>
<tr>
<td>Tensile set (after 300% elongation)</td>
<td>%</td>
<td>ASTM D412</td>
<td>&lt; 1%</td>
</tr>
</tbody>
</table>
INNOPUR BITUMEN PU THIX

Two component, polyurethane-bitumen based dilatation filler for waterproofing and protection

Product Description

INNOPUR BITUMEN PU THIX, is developed for vertical joints, two-component an ideal filling material with polyurethane-based, high performance and bitumen enriched. Forms a highly elastic film that will adhere strongly to the surface of almost every type. Excellent resistance against chemical and mechanical influences. Content is based elastomeric hydrophobic polyurethane resin and is supported with chemical polymerised pure bitumen. Resistance to different climatic and temperature conditions are perfect. In addition to the active waterproofing property, show very good strength to chemicals and other destructive factors.

Uses

✓ Joints of airport runways
✓ Roofs made of cement
✓ Metal or fibrous roofs
✓ Water tanks (except drinking water reservoirs)
✓ Floors
✓ Foundations
✓ Bridge platforms
✓ Cut-and-cover tunnels
✓ Irrigation channels

Consumption

1.0-1.5 l/m² applied in two or three layers. This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

Advantages

✓ Fast curing.
✓ Thick coat application can be made, does not create bubbles.
✓ The amount of unmixed components after application may be stored for later use.
✓ Because of the low modulus crack bridging feature is perfect.
✓ Exhibits effective resistance against chemicals.

✓ The thinning is not required but it can be thinned with polyurethane thinner according to the conditions.
✓ Thermal resistance is excellent, the product is never soft.
✓ Maximum Operating temperature 80°C, Maximum shock temperature 200°C.
✓ Resistant to cold, the film maintains its elasticity until -40°C.
✓ Excellent mechanical properties.
✓ Function effectively as a barrier to water vapor.

Application

Environmental Conditions

✓ Relative humidity of air should not exceed 80% and application temperature (environment and substrate) should be between +3°C and +35°C.
✓ In open areas 24 hours before application, during application and 24 hours after application should not be rainy.
✓ Ground temperature must be above 3 °C of temperature than the current dew temperature. (You can ask mibient temperature-Ambient humidity-Dew temperature table from our company).

The types of surface that successful results can be obtained

Concrete, fibrous cement, mosaic, cement roof tiles, old, but good stuck acrylic and asphalt coatings, wood, corroded metal, and galvanized steel surfaces. Other sub-layers, please contact our technical department.

Surface Preparation:

On the surface, if possible, should be cleaned using water pressure; oil, grease and wax contaminants should be removed, as well as mold release agents, cement residue, chips, loose particles and cured membranes must completely purify.
**TECHNICAL DATA SHEET**

**Mixing:**
After mixing equal amounts of the two components by hand or running at low speed (300 rpm/min.) with a mixer, apply with a trowel immediately. The pot life of the mixture is 20 °C for 25-30 minutes.

**Application:** Apply the material with a trowel

**Packaging:**
The material should be stored in a cool and dry place. The lifespan of the material when it is stored correctly and unopened in its original packaging for a and b components is 1 year.

---

**Technical Data**

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>RESULTS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elongation at 23 °C</td>
<td>&gt; 2400 %</td>
<td>ASTM D 412 / DIN 52455</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>&gt; 7 N/ mm²</td>
<td>ASTM D 412 / DIN 52455</td>
</tr>
<tr>
<td>E-Modulus</td>
<td>~1.0 N/ mm²</td>
<td>ASTM D 412 / DIN 52455</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>20 N/mm</td>
<td>ASTM D 624</td>
</tr>
<tr>
<td>Puncture Resistance</td>
<td>290 N</td>
<td>ASTM E 154</td>
</tr>
<tr>
<td>Resistance to Hydrostatic pressure</td>
<td>No Leak @ 3 bar (30 m water column)</td>
<td>DIN 16725</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>1.1 N/mm²</td>
<td>ASTM D 903</td>
</tr>
<tr>
<td>Hardness (Shore A Scale)</td>
<td>35</td>
<td>ASTM D 2240 (15&quot;)</td>
</tr>
<tr>
<td>Pot-Life</td>
<td>25-35 min</td>
<td></td>
</tr>
<tr>
<td>Tack Free Time</td>
<td>2-4 hours</td>
<td>Conditions: 20 °C, 50% RH</td>
</tr>
<tr>
<td>Light Pedestrian Traffic Time</td>
<td>18-24 hours</td>
<td></td>
</tr>
<tr>
<td>Final Curing time</td>
<td>7 days</td>
<td></td>
</tr>
</tbody>
</table>

**Chemical properties**
Good resistance against acidic and alkali solutions (5%), detergents,
Polyurethane Based Waterproofing

INNOPUR
Flooring & Waterproofing
INNOPUR PROOF PU 300 1K

One component polyurethane based, 300 elongation, non yellowing liquid waterproofing material.

DESCRIPTION

INNOPUR PROOF PU 300 1K, is a simple and economic solution for waterproofing and protection. It is a one component, low viscosity, polyurethane fluid which cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces.

It is based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush, roller or airless spraying in two coats. Minimum total consumption: 1.2-1.5 kg/m2.

RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards,
- Tiles (under),
- Bathrooms,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Asphalt membranes.

FEATURES & BENEFITS

- No thinning is required but SOLVENT may be used.
- Excellent weather and UV resistance. The white colour reflects much of the solar energy and so reduces the internal temperature of buildings considerably.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 200 °C.
- Resistance in the cold: The film remains elastic even down to -40 °C.
- Excellent mechanical properties.
- Good chemical resistance.
- Non-toxic after full cure.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Please refer to the Primer Selection Table

APPLICATION PROCEDURES:

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Priming:

Apply the required primer following the guidelines above.

Mixing:

Use a low speed (300 rpm) mixer. May optionally be thinned with 5-10% SOLVENT. For application by spraying (airless) thin with 10% SOLVENT

Application:

Apply the material with roller or brush in two, at least, coats. Leave 6-24 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, use INNOPUR PRIMER PU UNIVERSAL.

Minimum total consumption: 1.2-1.5 kg/m2.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

1 kg, 6 kg, 15 kg, 25 kg and 200 kg drums.
SHELF LIFE

Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of 5-25 °C. Once a pail has been opened, use as soon as possible.

TECHNICAL SPECIFICATIONS

The product in liquid form (before application):

95% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (BROOKFIELD)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>4000-6000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C</td>
<td>1.35-1.40</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>43</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25 °C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>65</td>
</tr>
<tr>
<td>Tensile strength at break @23 °C</td>
<td>Kg/cm², N/mm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>50</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 300</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>Kg/cm², N/mm²</td>
<td>ASTM D4541</td>
<td>&gt; 20 (&gt; 2)</td>
</tr>
<tr>
<td>Hydrolysis (8% KOH, 15 days @ 50°C)</td>
<td></td>
<td>-</td>
<td>no significant elastomeric</td>
</tr>
<tr>
<td>Hydrolysis (H2O, 14-day cycle RT-100 °C)</td>
<td>-</td>
<td>-</td>
<td>property change</td>
</tr>
<tr>
<td>Hydrolysis (H2O, 30-day cycle 60-100 °C)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric</td>
</tr>
<tr>
<td>HCL (PH=2, 10 days @ RT)</td>
<td></td>
<td>-</td>
<td>property change</td>
</tr>
</tbody>
</table>
INNOPUR PROOF PU 300 2K

Two component polyurethane based, %300 elongation, non yellowing liquid waterproofing material.

DESCRIPTION

INNOPUR PROOF PU 300 2K, is a simple and economic solution for waterproofing and protection. It is a one component, low viscosity, polyurethane fluid which cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces.

It is based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush, roller or airless spraying in two coats. Minimum total consumption: 1.2-1.5 kg/m2.

RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards,
- Tiles (under),
- Bathrooms,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Asphalt membranes.

FEATURES & BENEFITS

- No thinning is required but SOLVENT may be used.
- Excellent weather and UV resistance. The white colour reflects much of the solar energy and so reduces the internal temperature of buildings considerably.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 200 °C.
- Resistance in the cold: The film remains elastic even down to -40 °C.
- Excellent mechanical properties.
- Good chemical resistance.
- Non-toxic after full cure.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.

Can be successfully applied on: Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates:
Please refer to the Primer Selection Table

APPLICATION PROCEDURES:

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Priming:

Apply the required primer following the guidelines above.

Mixing:

Use a low speed (300 rpm) mixer. May optionally be thinned with 5-10% SOLVENT. For application by spraying (airless) thin with 10% SOLVENT

Application:

Apply the material with roller or brush in two, at least, coats. Leave 6-24 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, use INNOPUR PRIMER PU UNIVERSAL.

Minimum total consumption: 1.2-1.5 kg/m2.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

10+5 : 15 Kg / 3+1,5 : 4,5 Kg
**TECHNICAL DATA SHEET**

**SHELF LIFE**

Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of 5-25 °C. Once a pail has been opened, use as soon as possible.

**TECHNICAL SPECIFICATIONS**

The product in liquid form (before application):

95% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (BROOKFIELD)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>4000-6000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C</td>
<td>1.35-1.40</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>43</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25 °C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>-40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>65</td>
</tr>
<tr>
<td>Tensile strength at break @23 °C</td>
<td>Kg/cm² (N/mm²)</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>50</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 300</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>Kg/cm² (N/mm²)</td>
<td>ASTM D4541</td>
<td>&gt; 20 (&gt; 2)</td>
</tr>
<tr>
<td>Hydrolysis (8% KOH, 15 days @ 50°C)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
<tr>
<td>Hydrolysis (H2O, 14-day cycle RT-100 °C)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
<tr>
<td>Hydrolysis (H2O, 30-day cycle 60-100 °C)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
<tr>
<td>HCL (PH=2, 10 days @ RT)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
</tbody>
</table>
INNOPUR PROOF PU 400 1K

Polyurethane based, 400 % elongation, water-thinable liquid membrane for waterproofing & protection.

DESCRIPTION

INNOPUR PROOF PU 400 1K, is a unique product, the result of extensive research by INNOVA POLIMER’s technical team. It is part of the INNOPUR PROOF System, however, this particular variant is, optionally, water-thinable. It produces a strong elastic film with excellent adhesion to different surfaces. It contains a small percentage of SOLVENT. The addition of water into the product produces a thixotropic emulsion which cures quickly. It is based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards,
- Polyurethane insulation foams,
- Light roofing made of metal or fibrous cement,
- Asphalt membranes,
- EPDM membranes,
- Tiles,
- Bathrooms,
- Verandas and balconies,
- Roofs,

FEATURES & BENEFITS

- Thixotropic effect: Excellent for vertical substrates and PU foam protection.
- Fast curing, even during winter.
- Excellent adhesion on almost any surface, with or without the use of special primers.
- Excellent weather and UV resistance.
- Excellent thermal resistance, the product never softens. The film remains elastic even down to -40 °C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Absolutely non-toxic after full cure, may even be used for drinking water tank impermeabilisation.
- Moisture vapor transmission: The film breathes so there is no accumulation of humidity under the coat.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Please refer to the Primer Selection Table.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Stir the content well before thinning as some ingredients may deposit at the bottom of the pail. Use a low speed (300 rpm) mixer to thin with 10-15% water. Water acts as a second component to the product. Hence, if thinned, the entire pail must be used immediately.

Apply the material with roller or brush in two, at least, coats. Leave 6-24 hours between coats depending on weather conditions and speed of curing. If more time passes or if you are unsure of the interlayer adhesion, use INNOPUR PRIMER PU UNIVERSAL.
CONSUMPTION

First coat: 0.6-0.8 kg/m². Second coat: 0.6-0.9 kg/m².

Minimum total consumption: 1.2-1.5 kg/m².

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

TECHNICAL SPECIFICATIONS

In liquid form (before application):

95% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (BROOKFIELD)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>3500-5000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/c3</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C</td>
<td>1.3-1.4</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 64</td>
</tr>
<tr>
<td>Tack free time, @ 77°F (25 °C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>2-3</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>55</td>
</tr>
<tr>
<td>Tensile strength at break @ 23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>65</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 400</td>
</tr>
<tr>
<td>Water vapour transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Tensile set (after 300% elongation)</td>
<td>%</td>
<td>ASTM D412</td>
<td>&lt; 3%</td>
</tr>
<tr>
<td>QUV Accelerated Weathering</td>
<td>-</td>
<td>ASTM G53</td>
<td>passed</td>
</tr>
</tbody>
</table>
INNOPUR PROOF PU 500 1K

One component, 500% elongation, low viscosity, polyurethane liquid membrane for waterproofing & protection

DESCRIPTION

INNOPUR PROOF PU 500 1K is a one component, low viscosity, polyurethane fluid which cures with the humidity in the atmosphere. It produces a durable but highly elastic membrane with strong adhesion to many types of surfaces. It contains a small percentage of solvent (xylol) and so, doesn’t require further thinning. Based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, it displays excellent mechanical, chemical, thermal, UV and natural element resistance properties. Apply with brush, roller or airless spraying in two coats. Minimum total consumption: 1.5-1.8 kg/m².

CONSUMPTION:

1.5-1.8 kg/m².

RECOMMENDED FOR

Waterproofing and protection of:

- gypsum and cement boards,
- bathrooms,
- verandas and balconies,
- roofs,
- light roofing made of metal or fibrous cement,
- asphalt membranes,
- EPDM membranes,
- stadium stands,
- car parks,
- bridge platforms,
- irrigation channels.

FEATURES & BENEFITS

- Excellent adhesion on almost any surface, with or without the use of special primers.
- No thinning required.
- Excellent weather and UV resistance. The white colour reflects much of the solar energy and so reduces the internal temperature of buildings considerably.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80°C, max shock temperature 200°C.
- Resistance in the cold: The film remains elastic even down to -40°C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Non-toxic after full cure.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35°C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Please refer to the Primer Selection Table.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Priming:

Apply the required primer following the guidelines above.

Mixing:

Use a low speed (300 rpm) mixer for 2-3 minutes.

Application:

Apply the material with roller or brush in two, at least, coats. Do not exceed 48 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, use INNOPUR PRIMER PU UNIVERSAL.

CONSUMPTION

First coat: 0.8-0.9 kg/m². Second coat: 0.7-0.9 kg/m².

Application by spraying: 0.8 kg/m² per coat. Minimum total consumption: 1.5-1.8 kg/m².
**TECHNICAL DATA SHEET**

**CLEANING**

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-us-able.

**PACKAGING**

1 kg, 6 kg, 15 kg, 25 kg and 200 kg drums.

**TECHNICAL SPECIFICATIONS**

In liquid form (before application):

95% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (BROOKFIELD)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>3000-3500</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 28111, @ 20°C</td>
<td>1.3-1.4</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 42</td>
</tr>
<tr>
<td>Tack free time, @ 77 °F (25 °C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO RB68</td>
<td>65</td>
</tr>
<tr>
<td>Tensile strength at break @ 23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>85</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 500</td>
</tr>
<tr>
<td>Percent elongation @ -25 °C</td>
<td>%</td>
<td>ASTM D412</td>
<td>450</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m²·hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>Kg/cm²</td>
<td>ASTM D4541</td>
<td>&gt; 20 (&gt; 2)</td>
</tr>
<tr>
<td>Tensile set (after 300% elongation)</td>
<td>%</td>
<td>ASTM D412</td>
<td>&lt; 3%</td>
</tr>
</tbody>
</table>
TECHNICAL DATA SHEET

INNOPUR PROOF PU 750 1K

One component, high elasticity 750 %, polyurethane liquid membrane for flashing and seamless waterproofing.

DESCRIPTION

INNOPUR PROOF PU 750 1K, is a one component, thixotropic, polyurethane liquid used as basecoat in under-tile or protected applications. It cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces. Being thixotropic, it can easily be applied on vertical surfaces without running. Also, due to its combination of high elongation and low modulus properties, it is highly effective when used for crack-bridging. It is based on pure, elastomeric, hydrophobic, polyurethane resin, which results in excellent waterproofing properties. Apply with brush, roller or airless spraying in one or two coats with minimum total consumption of 1.0-1.2 kg/m2.

RECOMMENDED FOR

Waterproofing and protection of:

✓ Bathrooms,
✓ Verandas and balconies (under tile),
✓ Flower pots,
✓ Roofs (as basecoat),
✓ Basements,
✓ Foundations [not a humidity barrier].

FEATURES & BENEFITS

✓ Thixotropic: Easily applied on vertical or sloped surfaces and complex shapes without running or bubbling.
✓ Excellent adhesion on almost any type of surface, with or without the use of special primers.
✓ No thinning is required but SOLVENT maybe used.
✓ Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C.
✓ Resistance to cold: The film remains elastic even down to -40 °C.
✓ Excellent mechanical properties, high elongation and tensile strength.
✓ Good chemical resistance.
✓ Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat (for humidity barrier see INNOPUR BITUMEN 1K & INNOPUR BITUMEN 2K

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions [standard]:

✓ Hardness: R28 = 15 Mpa.
✓ Humidity: W < 10%.
✓ Temperature: 5-35 °C.
✓ Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Please refer to the Primer Selection Table

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

A. Priming:

Apply the required primer following the guidelines above.

B. Mixing:

Use a low speed (300 rpm) mixer.

C. Application:

Apply on DRY surface with roller, brush or airless spraying in one or two coats. Do not leave more than 48 hours between coats. If more time passes [for example more than 4 days] or if you are unsure of the interlayer adhesion, use INNOPUR PRIMER PU UNIVERSAL.

CONSUMPTION

Consumption per coat: 0.5-0.6 kg/m2. Minimum total consumption: 1.2-1.5 kg/m2.
CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

1 kg, 5 kg, 15 kg, 20 kg and 200 kg drums.

TECHNICAL SPECIFICATION

The product in liquid form (before application):

~90% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 ºC</td>
<td>3500-4000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 ºC</td>
<td>1.1</td>
</tr>
<tr>
<td>Flash point</td>
<td>ºC</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 42</td>
</tr>
<tr>
<td>Tack free time, @ 77 ºF (25ºC) &amp; 55% RH</td>
<td>hours</td>
<td></td>
<td>5-6</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td></td>
<td>6-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>ºC</td>
<td></td>
<td>40 to 80</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>30</td>
</tr>
<tr>
<td>Tensile strength at break @23 ºC</td>
<td>Kg/cm²/N/mm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>3</td>
</tr>
<tr>
<td>Percent elongation @ 23 ºC</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 750</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m² hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>kg/cm²/N/mm²</td>
<td>ASTM D4541</td>
<td>&gt; 20 (&gt; 2)</td>
</tr>
<tr>
<td>Hydrolysis resistance (Potassium Hydroxide 8%, 10 days @ 50 ºC)</td>
<td>-</td>
<td></td>
<td>unaffected</td>
</tr>
<tr>
<td>Hydrolysis resistance (Sodium Hypochlorite 5%, 10 days)</td>
<td>-</td>
<td></td>
<td>unaffected</td>
</tr>
<tr>
<td>H₂O absorption (10 days)</td>
<td></td>
<td></td>
<td>&lt; 1.3%</td>
</tr>
</tbody>
</table>
INNOPUR PROOF PU WTF 2K
Two component, solvent-less, polyurethane coating for flashing and tank waterproofing

DESCRIPTION
INNOPUR PROOF PU WTF 2K, is a two-component, solvent-free, thixotropic coating, based on high quality elastomeric polyurethane resins. After polymerization it produces a strong, elastic, hydrophobic membrane suitable for waterproofing and protection. It is recommended for waterproofing of water tanks. It has been certified for use in potable water tanks (more details available on request from our technical department). Apply with roller in two coats with consumption per coat of 700 gr/m². On the tank floor, a single coat of 1400 gr/m² is sufficient. On tank surfaces with direct exposure to sunlight, INNOPUR PROOF PU WTF 2K will discolor. This is purely visual, it does not affect the performance of the product.

RECOMMENDED FOR
Waterproofing and protection of:
- Water tanks made of concrete, steel or other material,
- Prefabricated concrete tanks,
- Drinking water tanks,
- Tanks with wall movement due to expansion and contraction.

FEATURES & BENEFITS
- Excellent adhesion on almost any type of surface.
- Being solvent-less, it can easily be applied in closed spaces.
- Extremely hydrophobic and hydrolysis resistant.
- Wide working temperature range: -40 °C to 90 °C.
- Good chemical resistance.
- Certified for potable water tanks, in accordance with the latest European Union requirements.
- The best value, performance-to-cost, solution for water tanks.
- Special primers, topcoats and coloring pastes are available.

APPLICATION PROCEDURE
The following guidelines are for concrete tanks. For information about tanks made of other materials, please contact our support department.) Clean the surface using jet water, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Priming:
Apply INNOPUR AQUA PRIMER particularly in case of negative pressure (e.g. in underground tanks).

Mixing:
Mix the two components using a low speed (300 rpm) mixer.

Application:
Apply with roller in two coats with consumption per coat of 700 gr/m². On the tank floor, a single coat of 1400 gr/m² is sufficient. Information on application by airless spraying is available on request from our technical department.

POT LIFE
Pot life once the two components have been mixed is 30 min in 20 °C. It can be increased by:
1. Keeping the mix in a cooler place, away from the sun,
2. Pouring the mix on the floor, in order for it to cool down, and then spreading it,
3. Pouring the mix in a separate wide and shallow container.

CONSUMPTION
Consumption per coat: 700 gr/m². Minimum total consumption: 1.4 kg/m².

CLEANING
Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING
24 kg (comp. A 4 kg, comp. B 20 kg).

COLOURS
- RAL 7040 (grey).
- RAL 9001 (off-white)
TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS / METHOD</th>
<th>COMPONENT A (HARDENER)</th>
<th>COMPONENT B (RESIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>-</td>
<td>liquid</td>
<td>thixotropic paste</td>
</tr>
<tr>
<td>Viscosity (Brookfield) of the mixture</td>
<td>cP / ASTM D2196-86, @ 25°C</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³ / ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>1.22</td>
<td>1.37</td>
</tr>
<tr>
<td>Solid residue</td>
<td>%</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mixing ratio</td>
<td>by weight</td>
<td>1 part</td>
<td>5 parts</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>6-48</td>
<td></td>
</tr>
<tr>
<td>Pot life @ 25 °C</td>
<td>min</td>
<td>20-30</td>
<td></td>
</tr>
</tbody>
</table>

In cured form (after application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 90</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 40</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>%</td>
<td>ASTM D412</td>
<td>&gt; 100</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>Kg/cm²(N/mm²)</td>
<td>ASTM D412</td>
<td>200 (20)</td>
</tr>
<tr>
<td>Water absorption</td>
<td>%</td>
<td>DIN 53495</td>
<td>&lt; 0.5</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>Kg/cm² (N/mm²)</td>
<td>ASTM D4541</td>
<td>20 (2)</td>
</tr>
</tbody>
</table>
## TECHNICAL DATA SHEET

### INNOPUR POLYUREA SF

**Pure polyurea system, 100% solid, fast curing, developed for waterproofing.**

#### Product Definition

INNOPUR POLYUREA SF; two component aromatic pure polyurea system which rapidly cures. A 100% solid, aromatic, flexible spray coating material which forms by the reaction of isocyanate prepolymer amine-terminated resin.

#### Application Areas

- As a protective coating on concretes, metals, woods, ceramics and PU foam.
- In roofs, balconies and terraces.
- In the waterproofing of foundational and patterned concretes.
- Inside of flower beds, waste water discharges and eavestroughs, concrete flumes.
- In tunnels, bridges, underpasses and overpasses, railroads and high-speed trains.
- Under-ceramic isolation of wet areas such as WC and bath.
- In the waterproofing of water tanks, pools, swimming pools, ponds and water pipes.
- In floors which require high-traffic resistance such as hospitals, factories, car parks and garages as an industrial floor coating.
- In ship decks and ship ports.
- In applications which require high resistance, also in the oil and gas industry, refineries, petrochemical industry and airports.
- In storage tanks and in areas which require acid-base resistance.

#### Advantages

- 100% solid, VOC-free.
- It does not contain catalyst.
- It gels and cures very quickly.
- It ensures functioning even in very cold weathers to -20°C.
- It is applicable in various weather conditions.
- It can create strong film in various thicknesses.
- It is odorless.
- It provides perfect temperature stability.
- It is joint-free and waterproof.
- It has a perfect adhesion on surfaces like concrete, metal, wood, ceramic and geotextile.
- It has perfect flexibility and chemical resistance.
- It has very good abrasion and impact resistance.
- It has a very good tensile and structural strength.
- It is resistance against UV, chlorine and sea water.

#### Package

A set of INNOPUR POLYUREA SF Component A weighs 225 kg in a barrel and the Component B weighs 200 kg in a barrel.

#### Application

Preparation of Surface: Generally, coating performance and surface adhesion are proportional to the preparation of surface. The biggest reason for the failures of surface coatings is the failure to carry out a sufficient and proper surface preparation. The application surface should be free of dust, dirt, oil, corrosion and other impurities. If a coating was applied to the surface previously, it should be taken into consideration that the surface may subject to absorption as that coating might influence the adhesion strength. A suitable primer should be used in order for the coating to stick to the surface more effectively. The product and the surface preparation to be used might change depending on the application. For a good application, you should use the recommended INNOPUR group primers.

Surface Application: The isocyanate prepolymer and poliol component can be applied to the surface by suitable spraying machines. For application, special polyurea machines are utilized which can work in high pressures and which can throw material in a volumetric rate of 1:1. For a good performance of polyurea coating, sufficient pressure and temperature should be stabilized during the application.

#### WARNINGS:

Dry time in polyurea systems is influenced by climatic and ambient conditions such as air temperature, relative humidity and air conditioning. Therefore, the curing and drying times stipulated in the technical data form should be used as a guide. Actual times required can be determined by field tests.

Aromatic polyurea systems have UV resistance but they do not have color stability. Therefore, these systems can change color when subjected to sunlight. It is thus recommended to use an aliphatic topcoat system in exterior applications. Color change does not influence the physical properties of the material.

#### Storage

Store the product in a cool and dry place. It is important that the storage is carried out on wooden pallets without a contact with the floor and in a temperature rage of 20 to 30°C. Shelf life of the product is 6 months for Components A and Component B when stored properly.
### Technical Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>ASTM Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Structure:</td>
<td>Iso component: Isocyanate (MDI) Prepolymer Poliol Component: Amine Resin</td>
<td></td>
</tr>
<tr>
<td>Volatile organic compound (VOC %):</td>
<td>0%</td>
<td>ASTM D-1259</td>
</tr>
<tr>
<td>Density (25°C):</td>
<td>Iso: 1.09-1.13 gr/cm³ Poliol: 1.00-1.02 gr/cm³</td>
<td>ASTM D 1217</td>
</tr>
<tr>
<td>Volume of Solids:</td>
<td>100% (A+B)</td>
<td>ASTM D-2697</td>
</tr>
<tr>
<td>Gelling Time:</td>
<td>4-10 seconds</td>
<td></td>
</tr>
<tr>
<td>Curing Time:</td>
<td>15-20 seconds</td>
<td></td>
</tr>
<tr>
<td>Wait time for next coat:</td>
<td>0-6 hours</td>
<td></td>
</tr>
<tr>
<td>Mixture Density (25°C):</td>
<td>1.00-1.02 gr/cm³</td>
<td></td>
</tr>
<tr>
<td>Tensile strength:</td>
<td>25-35 MPa</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Hardness:</td>
<td>45±5 ShoreD</td>
<td>ASTM D2240</td>
</tr>
<tr>
<td>Module:</td>
<td>100% flexibility ≥10 / 300% flexibility ≥15</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Elongation:</td>
<td>600%</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tear (ASTM D-624):</td>
<td>50 ± 5 N/mm</td>
<td>ASTM D 4060</td>
</tr>
<tr>
<td>Taber Wear Resistance:</td>
<td>160 mg/1000 revolution</td>
<td></td>
</tr>
<tr>
<td>Adhesion Strength:</td>
<td>Concrete: ≥2 N/mm² Steel: ≥6 N/mm²</td>
<td>ASTM D 4541</td>
</tr>
<tr>
<td>Vapor permeability (24 hours):</td>
<td>20g/mm/m²</td>
<td>ISO 15106-3</td>
</tr>
<tr>
<td>Methane permeability (24 hours):</td>
<td>85cm³/mm/m²</td>
<td>ISO 15105-1</td>
</tr>
</tbody>
</table>
INNOPUR POLYUREA HYBRID

Hybrid polyurea system, 100% solid, fast curing, developed for waterproofing.

**Product Description**

Hybrid polyurea system with a 1:1 mix ratio, 100% solid, fast curing, developed for waterproofing, applicable on concrete, metal and different surfaces. It is a chemical and abrasion resistant waterproofing membrane. Because of the fast reaction of the mixture, it can only be performed by special machines.

**Application Areas**

Can be applied:
- On roofs, balconies and terraces.
- For waterproofing of foundation and foundation wall concretes,
- Inside of flower beds, waste water discharges and eaves troughs, concrete flumes,
- On tunnels, road underpasses and overpasses,
- For under-like waterproofing of wet areas such as toilets and baths,
- For waterproofing of water storage and distribution canals.

**Usage and Consumption**

Apply 2.0-2.2 kg/m2 to obtain 2 mm of dry film thickness.

**Advantages**

- It can be used on many surfaces with a proper priming.
- In can be used on horizontal and vertical surfaces.
- It forms a monolithic surface with no need of jointing.
- It is applied and becomes ready very fast.
- It is suitable for continuous water contact.
- It is flexible and mechanically resistant against abrasion.
- It is resistant against subsoil chemicals.

**Package**

A set of INNOPUR POLYUREA HB consists of 225 kg component A and 200 kg Component B in two barrels.

**Surface Application:**

- INNOPUR POLYUREA HB should never be thinned. The Component B (the resin part) and it should be mixed into homogeneity by the air-compressed mixer before the application.
- Soil temperature should be 3°C higher than the dew-point temperature.
- Both of the materials should be heated up to 25-30°C before application.
- The plural system which is suitable for the 1:1 mix ratio of the Components A and B should be applied to the surface with a high-pressure, electric sprayer.
- The A and B components should both be sprayed after they are heated around 60-70°C and have 2000 psi (135 bars) of pressure minimally. The sufficient pressure and heat should be preserved all along the application.

**Surface Preparation:** Generally, the surface adhesion performance of a coating depends on the surface preparation. Therefore the application surface should be clean and steady, freed of all kinds of dirt and rust. The surfaces with old coatings should be examined and those layers which do not have a good surface adhesion should be removed and a surface should be mechanically prepared a surface with an increased adhesion and integrity. New and Old Concrete Surfaces: The age of a new concrete should be at least 28 days, depending on the season, and concrete surfaces should have 4% moisture content at the most. Remove all loose and friable materials, dust, oil, paint leftover and cement laitance from the surface. Cracks and defects should be repaired in advance by a paste to be prepared by a mixture of INNOPUR PRIMER EP UNIVERSAL, and sand/powder. If the old concrete surface is too shiny, it should be roughened or primed with INNOPUR PRIMER EP UNIVERSAL.

Wooden Surfaces: All wooden surfaces should be clean and dry, and oils, greases and other impurities should be removed from the surface. Splinters and uneven areas should be sanded. Knotty areas should be primed with INNOPUR PRIMER EP UNIVERSAL.

Steel Surfaces: Any oil or grease on the metal surface should be cleaned with detergent or vapor, and salts and other impurities should be eliminated with high pressure fresh water. After the cleaning, scraping is recommended in accordance with the standard ISO 8501-1 and in a level of Sa 2½ minimally so as to obtain a 70 to 100 micron surface profile. Scraped surfaces should immediately be primed with INNOPUR UNIVERSAL PRIMER.

Textiles, felts, weavings: Many fabrics, weavings, felts, textile products can be directly applied to geothermal membranes. Priming is not needed.

All Other Surfaces: Before starting the project, an adhesion test should be carried out. Please contact polimar chemicals - Technical Services for applications to be made to various surfaces.
TECHNICAL DATA SHEET

- INNOPUR POLYUREA HB should be smoothly applied through multiple passes so that an equal thickness and appearance is obtained.
- The consumption stipulated by the application should be complied with, and spraying should be carried out by a 45° angle except for in special conditions.

Storage

Store the product in a cool and dry place. Shelf life of the product is 6 months for Components A and Component B when stored properly. It is important that the storage is carried out on wooden pallets without a contact with the floor and over 15°C. In long-term storage of the material, position of the Component A and B packages should be periodically changed in their vertical sequence.

TECHNICAL SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Finish:</th>
<th>Semi-Matt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Grey/ rubigo / black</td>
</tr>
<tr>
<td>Density:</td>
<td>A:1.11 - B:1.08 ± 0.02 kg/l</td>
</tr>
<tr>
<td>Volume of Solids:</td>
<td>100% [A+B]</td>
</tr>
<tr>
<td>Mixture Life:</td>
<td>3-5 seconds</td>
</tr>
<tr>
<td>Ready for Use (@ 3 mm. thickness)</td>
<td>10-30 seconds</td>
</tr>
<tr>
<td>Recoat after:</td>
<td>0 – 12 hours / 20°C</td>
</tr>
<tr>
<td>Component A Viscosity:</td>
<td>3500±300cps. (Brookfield)</td>
</tr>
<tr>
<td>Component B Viscosity:</td>
<td>1100±300 cps. (Brookfield)</td>
</tr>
<tr>
<td>Hardness (ASTM D-412):</td>
<td>80-85 Shore A</td>
</tr>
<tr>
<td>Tensile Strength (ASTM D 412):</td>
<td>2000 ± 200 psi</td>
</tr>
<tr>
<td>Elongation (ASTM D638):</td>
<td>≥400</td>
</tr>
<tr>
<td>Tear (ASTM D-624):</td>
<td>350 ± 40 psi</td>
</tr>
<tr>
<td>Service Temperature - Dry</td>
<td>-30 / +120°C</td>
</tr>
<tr>
<td>Service Temperature - Wet</td>
<td>+4 / +50°C</td>
</tr>
<tr>
<td>Light-Traffic:</td>
<td>1-4 hours / 20°C</td>
</tr>
<tr>
<td>Fully Cured:</td>
<td>&gt; 24 hours / 20°C</td>
</tr>
<tr>
<td>Water absorption (ASTM D471):</td>
<td>&lt;0.5 (max.25°C, 24 hours)</td>
</tr>
<tr>
<td>Crack bridging (ASTM C836):</td>
<td>Pass (-25°C, 1.6mm crack, 25 cycles)</td>
</tr>
<tr>
<td>Impact Resistance (ASTM G14):</td>
<td>&gt;300lbs</td>
</tr>
<tr>
<td>Volatile organic compound (VOC %) (ASTM D1259):</td>
<td>60</td>
</tr>
<tr>
<td>Concrete (shotblasted / primed):</td>
<td>&gt;500psi (concrete breakout)</td>
</tr>
<tr>
<td>Steel (with 75-100 micron surface profile):</td>
<td>&gt;900psi</td>
</tr>
<tr>
<td>Flexibility (ASTM D1737):</td>
<td>Pass(1/8”[3mm] MandrelBend Test)</td>
</tr>
</tbody>
</table>
INNOPUR POLYUREA COLD

Two component polyurethane based, cold curing polyurea improved for waterproofing and protection

Product Description

INNOPUR POLYUREA COLD, two component, is a polyurea system which is composed of %100 solid material. For multi-component system (roller or trowel) has been developed for applications. It has excellent elasticity. In addition to this feature, has specially formulated polymerized profile to enhance adhesion. It is an ideal product requiring a high level of abrasion and impact resistance for commercial and industrial applications.

To be used in open areas, as a final coat, non-yellowing polyurethane (aliphatic) paint should be applied.

Uses

✓ Industrial floors
✓ Balconies and roof protections
✓ Sealing of cementitious substrates
✓ Bridges and tunnels

Consumption: Minimum consumption of 1.5-2 kg / m²

Advantages

✓ Fast curing
✓ Provides fast curing.
✓ Does not bubbling and deterioration.
✓ It is composed of 100% solid materials.
✓ Does not contain plastics materials.
✓ Does not contain toxic catalysts consisting of heavy metals.
✓ It has excellent thermal resistance. Product never soften again.
✓ It is resistant to cold. Film, even retains its elasticity at -40°C
✓ Excellent mechanical properties; high tensile and abrasion strength, high wear resistance is exhibited.
✓ Shows good degree of chemical resistance.
✓ It is effective at moisture vapor transmission. The film is breathable and thus prevents the accumulation of moisture beneath the film layer.

Packaging

12 kg a team INNOPUR POLYUREA COLD; The net consists of 8 kg of component A and 4 kg of the compound B in a one gallon pail.

Application

Surface Information: Application surface should be stable. Surface must have at least 25 N / mm² compressive strength and at least 1.5 N / mm² pull-off test results. According to the seasons, new concrete’s age must be at least 28 days, concrete surfaces should have a maximum moisture content of 5-6 %. Remove all loose and friable material, oil, paint residues, must be free from cement slurry. Large cracks and defects should be repaired in advance. Cement shell and bright scored on concrete surface should be cleaned, roughened and wiped by tools such as sanding, notching machine, tumble diamond grinding machines and forced grinding machines. All surfaces should be cleaned with industrial vacuum cleaner from dust.

Environmental Conditions:

- A relative humidity of air should be maximum of 80%, application temperature (ambient and substrate) between +3 °C and +35 °C should be.
- At open areas for 24 hours before starting the application, during the application and 24 hours after application should not be rainy.
- Surface temperature must be 3 °C above of the current dew drop temperature. (Want Ambient Temperature Dew Drop Temperature table from your company).

According to the surface condition primer options:

Damp substrates: INNOPUR PRIMER EP UNIVERSAL or INNOPUR AQUA PRIMER.

Highly porous damp substrates: INNOPUR PRIMER EP UNIVERSAL or INNOPUR AQUA PRIMER.

Preparation Mixing:

Wherein the two-component product, taking into account pot life, consumed by the amount specified mix ratio should be prepared. To achieve a homogeneous mixture, product temperature should be taken to not less than 15 °C. A component is mixed rapidly with a mechanical stirrer within, paying attention to the mixing ratio of hardener (component B) should be added. A and B components must be mixed with a mechanical mixer until homogenous.

Applied to the surface: The mixture was ready for application, should be spread with the help of roller or trowel until all surface is covered and closed pores. Second coat application period for at least 8 hours (at 20 °C), at most 1 day. Applying the second coat of the
above-mentioned new coating application time is very important. Cleaning of tools: With cellulosic thinner.

Technical Data

Liquid product (before application):

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>UNIT</th>
<th>METHOD</th>
<th>PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, at 25 °C</td>
<td>Component A:1300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Component B: 1000</td>
</tr>
<tr>
<td>Pot life</td>
<td>minute</td>
<td>-</td>
<td>20-30 minutes</td>
</tr>
<tr>
<td>Touch dry</td>
<td>Minute</td>
<td>-</td>
<td>120 minutes</td>
</tr>
<tr>
<td>Curing time Film (dry film):</td>
<td>hour</td>
<td>-</td>
<td>24 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>UNIT</th>
<th>METHOD</th>
<th>PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Shore D</td>
<td>ISO R868</td>
<td>30</td>
</tr>
<tr>
<td>At 23 °C break (tensile) strength</td>
<td>(N/mm²)</td>
<td>ASTM D412 / DIN 52455</td>
<td>12</td>
</tr>
<tr>
<td>At 23 °C stretch percentage</td>
<td>%</td>
<td>ASTM D412 / DIN 52455</td>
<td>650</td>
</tr>
<tr>
<td>Tear dispersion resistance</td>
<td>[N/mm]</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>
INNOPUR POLYUREA TRANS

Two component polyurethane based cold curing transparent polyurea improved for waterproofing and protection

Product Description

INNOPUR POLYUREA TRANS, two component, is a transparent cold curing polyurea system which is composed of % 100 solid material. For multi-component system (roller or trowel) has been developed for applications. It has excellent elasticity. In addition to this feature, has specially formulated polymerized profile to enhance adhesion. It is an ideal product requiring a high level of abrasion and impact resistance for commercial and industrial applications.

To be used in open areas, as a final coat, non-yellowing polyurethane (aliphatic) paint should be applied.

Uses

- Industrial floors
- Balconies and roof protections
- Sealing of cementitious substrates
- Bridges and tunnels

Consumption: Minimum consumption of 1.5-2 kg / m²

Advantages

- Fast curing
- Provides fast curing.
- Does not bubbling and deterioration.
- It is composed of 100% solid materials.
- Does not contain plastics materials.
- Does not contain toxic catalysts consisting of heavy metals.
- It has excellent thermal resistance. Product never soften again.
- It is resistant to cold. Film, even retains its elasticity at -40°C.
- Excellent mechanical properties; high tensile and abrasion strength, high wear resistance is exhibited.
- Shows good degree of chemical resistance.
- It is effective at moisture vapor transmission. The film is breathable and thus prevents the accumulation of moisture beneath the film layer.

Packaging

12 kg a team INNOPUR POLYUREA TRANS; The net consists of 8 kg of component A and 4 kg of the compound B in a one gallon pail.

Application

Surface Information: Application surface should be stable. Surface must have at least 25 N / mm² compressive strength and at least 1.5 N / mm² pull-off test results. According to the seasons, new concrete’s age must be at least 28 days, concrete surfaces should have a maximum moisture content of 5-6 %. Remove all loose and friable material, oil, paint residues, must be free from cement slurry. Large cracks and defects should be repaired in advance. Cement shell and bright screed on concrete surface should be cleaned, roughened and wiped by tools such as sanding, notching machine, tumble diamond grinding machines and forced grinding machines. All surfaces should be cleaned with industrial vacuum cleaner from dust.

Environmental Conditions:

- A relative humidity of air should be maximum of 80%, application temperature (ambient and substrate) between +3 °C and +35 °C should be.
- At open areas for 24 hours before starting the application, during the application and 24 hours after application should not be rainy.
- Surface temperature must be 3 °C above of the current dew drop temperature. (Want Ambient Temperature Ambient Humidity- Dew Drop Temperature Table from your company).

According to the surface condition primer options:

- Damp substrates: INNOPUR PRIMER EP UNIVERSAL or INNOPUR AQUA PRIMER.
- Highly porous damp substrates: INNOPUR PRIMER EP UNIVERSAL or INNOPUR AQUA PRIMER.

Preparation Mixing:

Wherein the two-component product, taking into account pot life, consumed by the amount specified mix ratio should be prepared. To achieve a homogeneous mixture, product temperature should be taken to not less than 15 °C. A component is mixed rapidly with a mechanical stirrer within, paying attention to the mixing ratio of hardener (component B) should be added. A and B components must be mixed with a mechanical mixer until homogenous.
Applied to the surface: The mixture was ready for application, should be spread with the help of roller or trowel until all surface is covered and closed pores. Second coat application period for at least 8 hours ( at 20 °C ), at most 1 day. Applying the second coat of the above-mentioned new coating application time is very important. Cleaning of tools: With cellulosic thinner.

Technical Data

Liquid product (before application):

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>UNIT</th>
<th>METHOD</th>
<th>PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, at 25 °C</td>
<td>Component A: 1300 Component B: 1000</td>
</tr>
<tr>
<td>Pot life</td>
<td>minute</td>
<td>-</td>
<td>30-40 minutes</td>
</tr>
<tr>
<td>Touch dry</td>
<td>Minute</td>
<td>-</td>
<td>160 minutes</td>
</tr>
<tr>
<td>Curing time Film (dry film)</td>
<td>hour</td>
<td>-</td>
<td>24 hour</td>
</tr>
</tbody>
</table>

Technical Data

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>UNIT</th>
<th>METHOD</th>
<th>PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 /ISO R868</td>
</tr>
<tr>
<td>At 23 °C break [tensile] strength</td>
<td>N/mm²</td>
<td>ASTM D412 / DIN 52455</td>
<td>12</td>
</tr>
<tr>
<td>At 23 °C stretch percentage</td>
<td>%</td>
<td>ASTM D412 / DIN 52455</td>
<td>650</td>
</tr>
<tr>
<td>Tear dispersion resistance</td>
<td>N/mm</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>
Protective Top Coats & Paints Waterproofing
INNOPUR FLOOR CLR 1K

One component, transparent, glossy, aliphatic, polyurethane liquid membrane

DESCRIPTION

INNOPUR FLOOR CLR 1K is a one-component polyurethane fluid which cures with the humidity in the atmosphere to produce a transparent membrane with uniform adhesion over the entire surface. It is aliphatic: No yellowing as a result of direct exposure to sunlight.

It is based on pure elastomeric hydrophobic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush, roller or airless spraying in one or two coats.

Minimum consumption per coat: 0.1 kg/m2.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc., must be removed. Glassy surfaces must either be graded or primed with INNOPUR PRIMER-T. Further primer information available on request. The application surface must be dry.

When used as a topcoat, for colour protection of INNOPUR, it must be pigmented with INNOVA POLYMER’s pigment pastes (10% max). When used as a top coat to a flooring product, e.g. epoxy/polyurethane paint or self-levelling systems, it should be applied pigmented, again, with INNOVA POLYMER’s pigment pastes 10% max) within 24 hours of application of the main coat.

Preparation:

When stirring (or pigmenting) take care not to introduce air in the mix, which may result in bubbling on the cured membrane. Stirring can either be done manually or with a with a low speed (300 rpm) mixer.

Application:

Apply with brush, roller or airless spraying in one or two coats. Do not leave more than 48 hours between coats. If applied non-pigmented, you are advised to consider whether there are any UV resistance requirements for the substrate or surface on which it is applied. For more information, please contact our support department.

CONSUMPTION

Minimum consumption per coat: 0.1 kg/m2.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

1 lt, 4 lt and 20 lt.
## TECHNICAL SPECIFICATIONS

In liquid form (before application): 50% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 ºC</td>
<td>100</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm3</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811</td>
<td>0.95</td>
</tr>
<tr>
<td>Tack free time, @ 77 °F (25 ºC) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>4-6</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>8-24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>ºC</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>ºC</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 65</td>
</tr>
<tr>
<td>Tensile strength at break @ 23 ºC</td>
<td>Kg/cm2m2)</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>550 (55)</td>
</tr>
<tr>
<td>Percent elongation @ 23 ºC</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m2.hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>QUV Accelerated Weathering Test (4hr UV, @ 60 ºC [UVB- Lamps] &amp; 4hr COND @ 50 ºC)</td>
<td>-</td>
<td>ASTM G53</td>
<td>Passed (2000 hours)</td>
</tr>
<tr>
<td>Hydrolysis (Potassium Hydroxide 8%, 10 days @60ºC)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
<tr>
<td>Hydrolysis (SodiumHypochlorite 5%, 10 days)</td>
<td>-</td>
<td>-</td>
<td>no significant elastomeric property change</td>
</tr>
<tr>
<td>Water absorption</td>
<td>-</td>
<td>-</td>
<td>&lt; 1%</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR CLR 2K

Two component, 100% solids, full aliphatic, polyurethane top coat / paint

DESCRIPTION

INNOPUR FLOOR CLR 2K is a two-component, 100% solids, fully aliphatic polyurethane top-coat/paint, which, once cured, produces a tough finish, specifically, high resistance to abrasion and chemicals.

It contains high quality inorganic fillers and pigments, which result in excellent hiding power in one only coat and, hence, significantly reduced consumption and application time. Further, it is thixotropic, which also makes it highly suitable for application on vertical substrates in, again, just one coat. Last but not least, due to its 100% aliphatic backbone, there is no yellowing as a result of direct exposure to sunlight.

Apply with roller or rubber squeegee in one or two coats. Maximum total consumption: 0.5 kg/m2

Also, for use as a UV resistant polyurethane paint for floors and swimming pools.

FEATURES & BENEFITS

- Solvent-less, 100% solids.
- Fully aliphatic, no yellowing resulting from UV exposure.
- Long pot-life, short curing time.
- Strong and uniform adhesion over the entire surface.
- Unsurpassed hiding power.
- Excellent resistance to heat, it will not yellow, peel or soften up to 80 °C.
- Very high resistance to mechanical stresses (high tensile strength and abrasion resistance).
- Outstanding resistance to chemicals and hydrolysis.

APPLICATION PROCEDURE

Clean the surface using jet water, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must also be removed. Glassy surfaces must either be ground or primed with INNOPUR PRIMER-T. (Further primer information available on request from our tech. department.) The application surface must be dry.

Mixing:

Stir comp. B thoroughly before mixing with comp. A (the resin). Mixing can either be done manually or with a low speed (300 rpm) mixer.

Let the mix stand for approximately 10 minutes (this is a necessary induction time) and then proceed to a second round of stirring.

INNOPUR FLOOR CLR 2K has a relatively long potlife of more than 30 minutes and a relatively short drying time of 3-4 hours. To prolong its pot life, either empty the mix directly on the application surface or in a wide and shallow container.

Application:

Apply with roller or rubber squeegee in one or two coats. Do not exceed 48 hours between coats.

CONSUMPTION

Maximum total consumption: 0.5 kg/m2

CLEANING

Clean tools and equipment first with paper and then using SOLVENT. Rollers will not be reusable.

PACKAGING

4.5 kg (1.5 kg + 3 kg) & 15 kg (5 kg + 10 kg).

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

SAFETY INFORMATION

INNOPUR FLOOR CLR 2K, is free of solvents. Nevertheless, you are advised to observe the standard safety rules: Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. The M.S.D.S. (Material Safety Data Sheet) is available on request.
## TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield) of mixed components.</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>5,500 - 7,000</td>
</tr>
<tr>
<td>Pot life of mix @ 25 °C &amp; RH55%</td>
<td>mins.</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25oC) &amp; 55% RH</td>
<td>hours</td>
<td></td>
<td>3 - 4</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td></td>
<td>12 - 48</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td></td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 80</td>
</tr>
<tr>
<td>QUV Accelerated Weathering Test [4hr UV, @ 60 °C (UVB- Lamps) &amp; 4hr COND @ 50°C]</td>
<td>-</td>
<td>ASTM G53</td>
<td>Passed (3,000 hours)</td>
</tr>
<tr>
<td>Hydrolysis (Potassium Hydroxide 8%, 10 days @ 60 °C)</td>
<td>-</td>
<td></td>
<td>no significant elastomeric property</td>
</tr>
<tr>
<td>Hydrolysis (Sodium Hypochlorite 16%, 10 days)</td>
<td>-</td>
<td></td>
<td>no significant elastomeric property</td>
</tr>
<tr>
<td>Water absorption</td>
<td>-</td>
<td></td>
<td>0.5%</td>
</tr>
</tbody>
</table>
**INNOPUR FLOOR CLR-G 1K**

One component, colored, glossy, aliphatic, elastic polyurethane liquid membrane.

**DESCRIPTION**

INNOPUR FLOOR CLR-G 1K, is a one-component polyurethane fluid which cures with the humidity in the atmosphere to produce a transparent membrane, of increased elasticity, with uniform adhesion over the entire surface. It is aliphatic: No yellowing as a result of direct exposure to sunlight. It is ideal for colour protection of INNOPUR products.

It is based on pure elastomeric hydrophobic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties. Apply with brush, roller or airless spraying in one or two coats.

Minimum consumption per coat: 0.1 kg/m²

**FEATURES & BENEFITS**

- Strong and uniform adhesion on almost any type of surface,
- Highly hydrophobic,
- Highly durable when exposed to the natural elements, maintains its elasticity even down to -40 °C,
- Excellent heat and ultraviolet/UV resistance, it will not yellow, peel or soften up to 80 °C,
- Outstanding resistance to chemicals and mechanical stresses (high tensile strength and abrasion resistance),
- Compatible pigment pastes available in many colours.

**APPLICATION PROCEDURE**

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed. In the case of smooth surfaces, they must either be graded or primed using INNOPUR PRIMER-T. Further primer information available on request. The application surface must be dry.

When used as a topcoat, for colour protection of INNOPUR products, it must be pigmented with of INNOVA POLYMER CHEMICAL's pigment pastes (10% max). It must be applied WITHIN 72 hours of INNOPUR.

**Preparation:**

When stirring (or pigmenting) take care not to introduce air in the fluid, which may result in bubbling on the cured membrane. Stirring can either be done manually or with a with a low speed (300 rpm) mixer.

**Application:**

Apply with brush, roller or airless spraying in one or two coats. Do not exceed 48 hours between coats.

**CONSUMPTION**

Subject to substrate porosity: 0.1-0.5 kg/m². For concrete sealing: 0.1-0.15 kg/m². For top-coating INNOPUR - consumption per coat: 0.1 kg/m².

**CLEANING**

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

**PACKAGING**

1 Lt, 4 Lt and 20 Lt.

**SHELF LIFE**

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.
## TECHNICAL SPECIFICATIONS

In liquid form (before application):

50% dry matter in Xylol.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>200-300</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>1.0</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25 °C) &amp; 55% RH</td>
<td>hours</td>
<td></td>
<td>6-8</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td></td>
<td>-40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>40</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 300</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m²/hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
<tr>
<td>Thermal resistance (100 days @ 80 °C)</td>
<td></td>
<td>EOTA TR011</td>
<td>passed</td>
</tr>
<tr>
<td>QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB Lamps) &amp; 4hr COND @ 50 °C)</td>
<td></td>
<td>ASTM G53</td>
<td>Passed (2000 hours)</td>
</tr>
<tr>
<td>Water absorption</td>
<td></td>
<td></td>
<td>&lt; 1.4%</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR P 1K

One component polyurethane paint for waterproofing & protection.

DESCRIPTION

INNOPUR FLOOR P 1K is a one component polyurethane fluid which cures with the humidity in the atmosphere. It produces a very strong membrane with outstanding adhesion to many types of surfaces and excellent chemical and hydrolysis resistance properties.

Ideal for protecting metal structures against corrosion. Suitable for chemicals and effluent treatment tanks and sewage tubes. It is highly resistant to gases produced during waste water treatment, e.g. methane, hydrogen sulphide etc.. Apply with brush, roller or airless spraying in one or two coats with maximum consumption per coat of 150 gr/m². Thinning is not necessary. When exposed to sunlight, directly or indirectly, INNOPUR FLOOR P 1K has the tendency to discolour (yellowing). To preserve colours, a protective topcoat of INNOPUR CLR PAINT (always pigmented) is required.

RECOMMENDED FOR

Waterproofing and protection of:
- Metal structures,
- Concrete,
- Industrial floors,
- Car parks,
- Refrigeration units,
- Tanks for chemicals,
- Waste water treatment tanks,

FEATURES & BENEFITS

- Quick curing.
- Excellent adhesion on almost any type of surface.
- Completely hydrophobic.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80°C, max shock temperature 200°C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Excellent chemical resistance.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Fill surface irregularities with the necessary product.

Application:

Apply with brush, roller or airless spraying in one or two coats. Successive coats are applied before the previous is fully cured in order to maximize adhesion between layers.

SAFETY INFORMATION

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

CONSUMPTION

Maximum per coat: 150 gr/m².

Maximum total: 300 gr/m².

When in continuous contact with chemicals, maximum total: 450 gr/m²

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

1 lt, 5 lt, 20 lt.

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 ºC. Once opened, use as soon as possible.
## TECHNICAL SPECIFICATIONS

### In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>110</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>0.98</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>28</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td></td>
<td>2-3</td>
</tr>
</tbody>
</table>

### The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td></td>
<td>-40 to 80</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>Tensile strength at break @23°C</td>
<td>Kg/cm²[N/mm²]</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 55</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m²/hr</td>
<td>ASTM E96 [Water Method]</td>
<td>0.8</td>
</tr>
</tbody>
</table>

### Chemical resistance tests over 12-month period:

<table>
<thead>
<tr>
<th>EXPOSED TO</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid 10%</td>
<td>Tiny holes appear after 10 days</td>
</tr>
<tr>
<td>Acetone</td>
<td>Soft after 10 days</td>
</tr>
<tr>
<td>Alcohol 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Ammonia 10%</td>
<td>Tiny holes appear after 20 days</td>
</tr>
<tr>
<td>Chloride 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Chloride acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Citric acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Cresol</td>
<td>Damaged after 5 days</td>
</tr>
<tr>
<td>Distilled water</td>
<td>OK</td>
</tr>
<tr>
<td>Drinking water</td>
<td>OK</td>
</tr>
<tr>
<td>Ethyl glycol acetate</td>
<td>OK</td>
</tr>
<tr>
<td>Fatty acids</td>
<td>OK</td>
</tr>
<tr>
<td>Formic acid 10%</td>
<td>Tiny holes appear after 8 days</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR P 2K

Two component, moderately elastic polyurethane paint for sealing, waterproofing & protecting flooring and other applications

DESCRIPTION

INNOPUR FLOOR P 2K is a two-component, solvent-free polyurethane fluid. It produces a strong membrane of moderate elasticity with outstanding adhesion to many types of surfaces.

It is based on pure hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent abrasion and chemical resistance properties.

Apply with roller or rubber squeegee in two coats with total consumption of 0.3-0.5 kg/m2.

When exposed to sunlight, directly or indirectly, INNOPUR FLOOR P-2K has the tendency to discolour (yellowing). To preserve colours, use the INNOPUR FLOOR CLR family of products pigmented.

RECOMMENDED FOR

Waterproofing and protection of:

✓ Industrial floors,
✓ Car parks,
✓ Stadium stands,
✓ Tanks carrying chemicals,
✓ Effluent treatment tanks,
✓ Sewage tanks

FEATURES & BENEFITS

✓ Very strong adhesion on almost any type of surface.
✓ Solvent-free: Ideal for application in closed areas.
✓ Excellent thermal resistance, the product never turns soft. Max service temperature 90°C, max shock temperature 200°C.
✓ Equally resistant to cold, down to -40°C
✓ Outstanding mechanical properties, high tensile and tear strength, high abrasion resistance.
✓ Excellent chemical resistance.
✓ Absolutely non-toxic after full cure: Suitable for impermeabilisation of drinking water tanks.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

✓ Humidity: W < 10%.
✓ Temperature: 5-35°C.
✓ Relative humidity: < 85%.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Fill surface irregularities with the necessary product.

Mixing:

Pour component A into component B container and use a low speed (300 rpm) mixer.

Application:

Apply two coats with roller or rubber squeegee. Do not leave more than 48 hours between coats.

Pot life: 20 minutes @ 25°C & 55% RH.

CONSUMPTION

Minimum total consumption: 0.3-0.5 kg/m2.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.

PACKAGING

4.5 kg (3+1.5) and 15 kg (10+5).
TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield) after mixing</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>2,700</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>Comp. A (isocyanate): 1.20 Comp. B (polyols): 1.21</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF (25 °C) &amp; RH 55%</td>
<td>hours</td>
<td>-</td>
<td>3-4</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
<tr>
<td>Pot life @ 25 °C &amp; RH 55%</td>
<td>Min</td>
<td>-</td>
<td>20</td>
</tr>
</tbody>
</table>

The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 90</td>
</tr>
<tr>
<td>Max. temperature short time/shock</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>Tensile strength at break @23 °C</td>
<td>N/mm</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 30</td>
</tr>
<tr>
<td>Percent elongation @ -25 °C</td>
<td>%</td>
<td>ASTM D412</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m²/hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Adhesion test by ASTM D4541:

<table>
<thead>
<tr>
<th>SUBSTRATE</th>
<th>FORCE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanised steel</td>
<td>&gt; 10 mPa</td>
<td>Pulley failure</td>
</tr>
<tr>
<td>Concrete</td>
<td>&gt; 4 mPa</td>
<td>Concrete failure</td>
</tr>
<tr>
<td>Wet concrete</td>
<td>&gt; 4 mPa</td>
<td>Concrete failure</td>
</tr>
<tr>
<td>Marble</td>
<td>&gt; 4 mPa</td>
<td>Marble failure</td>
</tr>
</tbody>
</table>
# Chemical Resistance

<table>
<thead>
<tr>
<th>EXPOSED TO</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid 10%</td>
<td>tiny holes appear after 10 days</td>
</tr>
<tr>
<td>Acetone</td>
<td>soft after 10 days</td>
</tr>
<tr>
<td>Alcohol 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Ammonia 10%</td>
<td>tiny holes appear after 20 days</td>
</tr>
<tr>
<td>Chloride 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Chloride acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Citric acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Cresol</td>
<td>damaged after 5 days</td>
</tr>
<tr>
<td>Distilled water</td>
<td>OK</td>
</tr>
<tr>
<td>Drinking water</td>
<td>OK</td>
</tr>
<tr>
<td>Ethyl glycol acetate</td>
<td>OK</td>
</tr>
<tr>
<td>Fatty acids</td>
<td>OK</td>
</tr>
<tr>
<td>Formic acid 10%</td>
<td>tiny holes appear after 8 days</td>
</tr>
<tr>
<td>Gasoline</td>
<td>OK</td>
</tr>
<tr>
<td>Hydrogen peroxide 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Lactic acid 25%</td>
<td>OK</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>damaged after 1 day</td>
</tr>
<tr>
<td>Nitric acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Potassium hydroxide 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Sea water</td>
<td>OK</td>
</tr>
<tr>
<td>Sodium hydroxide 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Sodium hypochlorite 3%</td>
<td>OK</td>
</tr>
<tr>
<td>Sugar 30%</td>
<td>OK</td>
</tr>
<tr>
<td>Sulfuric acid 10%</td>
<td>OK</td>
</tr>
<tr>
<td>Tannic acid</td>
<td>OK</td>
</tr>
<tr>
<td>Xylene</td>
<td>OK</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR PU 2K

Two component, self levelling, solvent free, %100 resin polyurethane flooring material

DESCRIPTION:

INNOPUR FLOOR PU 2K, is a two component, self levelling solvent free polyurethane material that upon curing produces a strong, slightly elastic film with excellent adhesion to various surfaces. The product is based on pure hydrophobic polyurethane resin plus special inorganic fillers that provide the material with excellent abrasion and Chemical Resistance.

APPLICATIONS:

✓ Industrial Floors
✓ Ship Decks
✓ Food, Chemical and Pharmaceutical Industries
✓ Refrigeration cells
✓ Secondary containment
✓ Asphalt floors
✓ Tanks
✓ Car parks

FEATURES & BENEFITS:

✓ Solvent free
✓ Long pot life
✓ Temperature Resistance from -40°C up to 90°C.
✓ Excellent mechanical properties, high tensile and tear strength, abrasion resistance.
✓ Excellent chemical resistance.
✓ Finally the material when cured it is absolutely not toxic and it can be used for the impermeabilization of drinking water tanks as well.

APPLICATION:

Concrete substrate conditions (standard):

✓ Hardness: R28 =15Mpa
✓ Humidity: W < 10%
✓ Temperature: from 5 °C - 35 °C
✓ Relative humidity: < 85%

Clean the surface, using jet water if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, curing membranes must be removed. Fill surface irregularities with adequate products.

MIXING:

Use a low speed (300 rpm) electric drill.

PLACING:

Apply undiluted with a spatula. INNOPUR FLOOR PU 2K may be charged with quartz, for color retention (slight discoloration occurs when exposed to sun light) apply a pigmented coat of INNOPUR FLOOR CLR (glossy), INNOPUR FLOOR PU FINISH SATIN (matte) or for a more elastic topcoat Pigmented INNOPUR FLOOR CLR 2K

PACKAGING:

15.5 Kg + 4.5Kg (20 Kg)

SHELF LIFE:

INNOPUR FLOOR PU 2K can be kept for minimum 12 months in the original unopened pails at a temperature of 5 °C - 25 °C in dry places.
### TECHNICAL SPECIFICATIONS

**The Liquid product:**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life (25°C) &amp; 55% RH</td>
<td>Min.</td>
<td>Internal Method</td>
<td>30-35</td>
</tr>
<tr>
<td>Viscosity (BROOKFIELD) upon mixing</td>
<td>cP</td>
<td>ASTM D2196-86, at 25°C</td>
<td>3000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, at 20°C</td>
<td>Component A (hardener): 1.2 Component B (resin) : 1.26</td>
</tr>
<tr>
<td>Tack free time, at 77deg F (25°C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>2-3</td>
</tr>
</tbody>
</table>

**The Film:**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt;65</td>
</tr>
<tr>
<td>Tensile Strength at break at 23 °C</td>
<td>N/mm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt;30</td>
</tr>
<tr>
<td>Percent Elongation at -25 °C</td>
<td>%</td>
<td>ASTM D412</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Water Vapour Transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 (Water Method)</td>
<td>&lt;0.8</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR PU FINISH ( SATIN )

One component, low viscosity, transparent, aliphatic polyurethane liquid membrane for satin finish

DESCRIPTION

INNOPUR FLOOR PU FINISH SATIN, is a one-component, low viscosity polyurethane fluid which cures with the humidity in the atmosphere to produce a transparent membrane with very strong adhesionon most types of substrate. It is aliphatic: No yellowing as a result of direct exposure to sunlight. It is based on pure elastomeric hydrophobic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush in one or two coats.

Minimum total consumption: 0.1-0.2 kg/m².

FEATURES & BENEFITS

✓ Satin result.
✓ Excellent impregnation, even if substrate is only slightly porous, e.g. marble, mosaic.
✓ Quick curing – no dust pick-up,
✓ Strong and uniform adhesion on almost any type of surface,
✓ Excellent heat and ultraviolet/UV resistance, it will not yellow, peel or soften up to 80 °C, max shock temperature 200 °C,
✓ Highly durable when exposed to cold, maintains elasticity even down to -40 °C,
✓ Highly resistant to mechanical stresses (high tensile strength and abrasion resistance),
✓ Resistant to chemicals.

APPLICATION PROCEDURE

Clean the substrate using a high pressure washer if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed.

Preparation:

When stirring take care not to introduce air in the fluid, which may result in bubbling on the cured membrane.

Application:

Apply with brush in one or two coats. Second coat is applied within 6-24 hours.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Brushes will not be re-usable.

PACKAGING

1 lt, 4 lt and 20 lt.

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

SAFETY INFORMATION

Contains volatile flammable solvents. Apply in well ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.
### TECHNICAL SPECIFICATIONS

#### In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>20-40</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217/ISO2811, @20 °C</td>
<td>0.9-0.95</td>
</tr>
<tr>
<td>Tack free time, @ 77 oF [25°C] &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>3-4</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

#### The cured membrane:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>-40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>Tensile strength at break @23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>550 (55)</td>
</tr>
<tr>
<td>Percent elongation @ 23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 [Water Method]</td>
<td>0.8</td>
</tr>
<tr>
<td>Water absorption</td>
<td>-</td>
<td>-</td>
<td>&lt; 1.0%</td>
</tr>
</tbody>
</table>
INNOPUR FLOOR TRANS

One component, transparent, full aliphatic, polyurethane liquid membrane for waterproofing & protection

DESCRIPTION

INNOPUR FLOOR TRANS is a one component high-solids, polyurethane fluid, which cures with the humidity in the atmosphere. It produces an elastic, highly durable, highly hydrophobic membrane with excellent UV resistance. Being aliphatic, it does not yellow/discolour when exposed to sunlight.

It is based on pure elastomeric, hydrophobic, aliphatic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with roller in one or two coats. Minimum total consumption: 0.2-1.0 kg/m².

Although INNOPUR FLOOR TRANS looks coloured, especially when it is in large containers, it is stressed that the end result is, indeed, transparent.

APPLICATION PREREQUISITES

Can be successfully applied on:

Tiles, concrete, cement roof tiles, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15 Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C
- Relative humidity: < 85%

Primer selection for special conditions and substrates:

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. If used for concrete sealing, cement laitance, loose particles, mould release agents, cured membranes must also be removed.

Fill surface irregularities with the necessary product.

Priming:

Priming is required when application is on non-porous substrates, such as ceramic tiles and marble. In this case, INNOPUR PRIMER-T is used. It is applied with a clean cloth without leaving any pools of fluid [apply as if wiping the surface].

Mixing:

Stir well, manually or with a low speed mixer. No thinning is required but SOLVENT may be used.

Application:

INNOPUR FLOOR TRANS, is applied as soon as the primers dry (after 15-20 mins) with roller in one or two coats. Do not leave more than 24 hours between coats.
CONSUMPTION

Minimum total consumption: 0.2-1.0 kg/m²

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be reusable.

PACKAGING

1 kg, 5 kg, 20 kg and 200 kg drums.

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

TECHNICAL SPECIFICATIONS

In liquid form (before application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>1,000</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 ISO 2811, @ 20 °C</td>
<td>1.0</td>
</tr>
<tr>
<td>Solids</td>
<td>%</td>
<td>internal</td>
<td>80-85</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>42</td>
</tr>
<tr>
<td>Recoat time</td>
<td>hours</td>
<td>-</td>
<td>6-24</td>
</tr>
</tbody>
</table>

In cured form (after application):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature</td>
<td>°C</td>
<td>-</td>
<td>40 to 80</td>
</tr>
<tr>
<td>Max. temperature short time (shock)</td>
<td>°C</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>ASTM D2240 / DIN 53505 / ISO R868</td>
<td>40</td>
</tr>
<tr>
<td>Tensile strength at break @ 23 °C</td>
<td>Kg/cm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>350 (35)</td>
</tr>
<tr>
<td>Percent elongation @23 °C</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt; 350</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>gr/m².hr</td>
<td>ASTM E96 (Water Method)</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Cement Based Waterproofing
INNOPUR SEAL 100

Two component cement based, full elastic waterproofing material.

Product Description

INNOPUR SEAL 100; is a full elastic waterproofing material that is designed for all kind of cement and polymer dispersion based concrete surfaces and cement based liquids.

Uses

✓ Waterproofing of indoor and outdoor,
✓ Waterproofing of water tanks (on condition that the surface of this material must be protected)
✓ Waterproofing of Chill Store (on walls and on floors)
✓ Waterproofing of wet areas (Kitchen, bathroom etc.)
✓ On Terraces (on condition that the surface of this material must be coated.)
✓ Waterproofing of foundation and sustaining wall,
✓ Waterproofing of flower plantation

Packaging

30 kg set of INNOPUR SEAL 100 consist of Component A in reinforced polyethylene paper bag net 20 kg and Component B in plastic drum net 10 kg.

Consumption

INNOPUR SEAL 100 must be applied 1,20 kg/m² as the first layer, 1 kg / m² as the second layer, 1 kg/ m² as the third layer.

Advantage

✓ It is elastic and watertight,
✓ It can be easy prepared and applied,
✓ It can be applied with roller or spraying machine,
✓ By its high adhesion performance and flexibility, it forms a waterproof layer under screed and ceramics.
✓ It forms jointless permanent waterproofing coating.
✓ It has resistant to chemicals and salt solution in soil.
✓ Provides water vapor permeability.
✓ High durability
✓ It is used on the areas that affected from movement and vibration.
✓ Resistant to frost

Application

Surface Preparation

Surface should be dry, clean, free of any defect and load-tolerant. Any oil, wax, grease, water repellent, easily detachable and loose parts and dust on the surface which may impair adhesion force should be cleaned off and removed by floor planer. Iron and wooden wedges must be removed from the surface. Any water leakages, non-uniform surface and corner edges must be repaired with suitable prepare mortar, minimum radius of 4 cm.

Before application, surface should be wetted (not allowed to be pond). If the Coating Material loses its water immediately and gets matt that shows the surface does not get wett sufficiently or dry fastly. At such as hot weathers or in case of material is exposed to wind, water added up to 10% of B Component to the mixture prepared for first layer.

Strength

Product strength is 1 year from date of production at proper storage conditions. Opened packages should be tightly closed and kept under appropriate storage conditions.

Mixing Procedure

B component of INNOPUR SEAL 100 stills in to a clean mixing container. While A component is added slowly, mixture should be mixed with 400-600 rev/min mixing drill. Components A and B should be stirred for minimum 3 minutes until you have a homogenous mixture and should be allowed to rest for 2 minutes. Then stir again for 1 min. to make the mixture ready to use. 20 kg dust A Component mix with 10 kg liquid Component B. Density of Mixture: 1.7 kg/lit

Surface Application

Apply INNOPUR SEAL 100 mixture in two or three layer with brush. Direction of brush application should be perpendicular to each other. Waiting time between coatings depends on conditions.
Storage

Store the product in a cool and dry place. Short-term storing: max. 3 pallets should be superpose. Long-term storing: pallets should not be superpose.

TECHNICAL SPECIFICATIONS

| INNOPUR SEAL 100 Component A: | Special Cement, Mineral Fillers, Polymer |
| INNOPUR SEAL 100 Component B: | Liquid Polymer Dispersion |
| Colour: | Greenish-Gray |
| Adhesion Strength: | 1.0 N/mm² |
| Resistance to Water Pressure: | 7 bar (positive) |
| Solid Temperature: | +5°C - +25°C |
| Service Temperature: | -20°C - +80°C |
| Pot Life of Fresh Mixture: | 2 hours |
| Ready to use (Mechanical Strength): | 2 days |
| Ready to use (Waterproof): | 7 days |
| Coating (Liquid and Ceramic): | 3 days |

**PS:** The informations above is given according to +23 °C and 50% humidity. High temperatures shorten the curing time and low temperatures increase the curing time.
INNOPUR SEAL 200

Two Component, cement based, semi-elastic waterproofing material.

Product Description
INNOPUR SEAL 200; is semi-elastic waterproofing material that is designed for all kind of cement and polymer dispersion based concrete surfaces and cement based liquids.

Advantages
✓ It is semi-elastic and watertight,
✓ It can be easily prepared and applied,
✓ It can be applied with roller or spraying machine,
✓ By its high adhesion performance and semi-elasticity, it forms a waterproof layer under screed and ceramics.
✓ It forms jointless, permanent waterproofing coating.
✓ Provides water vapor permeability.
✓ Resistant to frost.
✓ It can safely be used in drinking water tanks[ has test report ]

Application

Surface Preparation
Surface should be dry, clean, free of any defects and load-tolerant. Any oil, wax, grease, paint, bitumen, water repellent, easily detachable and loose parts and dust on the surface which may impair adhesion force should be cleaned off and removed by floor planer. Iron and wooden wedges must be removed from the surface. Any water leakages, non-uniform surface and corner edges must be repaired with suitable prepare mortar, minimum radius of 4 cm.

Before application, surface should be wetted (not allowed to be pond ). If the Coating Material loses its water immediately and gets matt that shows the surface does not get wet sufficiently or dry fastly. At such as hot weathers or in case of material is exposed to wind, water added up to 10% of B Component to the mixture prepared for first layer.

Strength
Product strength is 1 year from date of production at proper storage conditions. INNOPUR SEAL 200 Component B, freezes at the temperatures below 0°C. Opened packages should be tightly closed and kept under appropriate storage conditions.

Mixing Procedure
B component of INNOPUR SEAL 200 stills in to a clean mixing container. While A component is added slowly, mixture should be mixed with 400-600 rev/min mixing drill. Components A and B should be stirred for minimum 3 minutes until you have a homogenous mixture and should be allowed to rest for 2 minutes. Then stir again for 1 min. to make the mixture ready to use.

Surface Application
Apply INNOPUR SEAL 200 mixture in two or three layers with brush. Direction of brush application should be perpendicular to each other. Waiting time between coatings depends on conditions.

Storage
Store the product in a cool and dry place.
Short-term storing : max. 3 pallets should be superpose. Long-term storing : pallets should not be superpose.
TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>INNOPUR SEAL 200 Component A:</th>
<th>Special Cement, Mineral Fillers, Polymer</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNOPUR SEAL 200 Component B:</td>
<td>Liquid Polymer Dispersion</td>
</tr>
<tr>
<td>Colour:</td>
<td>Dark Cement Colour</td>
</tr>
<tr>
<td>Adhesion Strength:</td>
<td>1.05 gr/cm²</td>
</tr>
<tr>
<td>Resistance to Water Pressure :</td>
<td>2 bar (positive)</td>
</tr>
<tr>
<td>Solid Temperature:</td>
<td>+5°C → +25°C</td>
</tr>
<tr>
<td>Service Temperature:</td>
<td>+20°C → +80°C</td>
</tr>
<tr>
<td>Pot Life of Fresh Mixture:</td>
<td>2 hours</td>
</tr>
<tr>
<td>Ready to Use (Mechanical Strength):</td>
<td>2days</td>
</tr>
<tr>
<td>Ready to Use (Waterproof):</td>
<td>7 days</td>
</tr>
<tr>
<td>Coating (Liquid or ceramic):</td>
<td>3 days</td>
</tr>
</tbody>
</table>

**PS:** The informations above is given according to +23 °C and 50% humidity. High temperatures shorten the curing time and low temperatures increase the curing time.
INNOPUR SEAL 300
One component, cement based, capillary effective, crystallized waterproofing material

Product Description
INNOPUR SEAL 300 is a cement based, single component, crystallized waterproofing material that is applied on both new and old structures to negative and positive direction.

Uses
- Waterproofing of interior and exterior areas
- Waterproofing of vertical and horizontal applications.
- Waterproofing of basement floors.
- Waterproofing of foundation wall.
- Waterproofing of tunnels.
- Waterproofing of Semi-Olimpic Swimming Pools
- Waterproofing of elevator shafts.
- Waterproofing of retaining walls.

Packaging
INNOPUR SEAL 300 consist of reinforced polyethylene paper bag net 20 kg.

Consumption
INNOPUR SEAL 300 must be applied 1 kg/m² as the first layer, 1 kg / m² as the second layer.

Advantages
- Mixed with only water.
- It can be easy prepared and applied.
- It has a long working time.
- It is effective on both negative and positive directions.
- It fills the capillary gaps with permanent crystals and make waterproofing.
- It protects the concrete and fittings from the corrosive effects of water.
- It has water vapor and air permeability.
- It can be used on drinking water tanks.
- The formed crystals do not be resolved, removed from the surface.
- The formed crystals do not get old.
- The active material of the product reacts with the water inside the concrete and crystallized in the capillary gaps. This provides waterproofing.
- This is the most economical solution on the negative dimension.

Application
Surface Preparation
Surface should be dry, clean, free of any defects. Any oil, rust, paraffin, paint, bitumen remnants easily detachable and loose parts and dust should be cleaned on the surface. Iron and wooden wedges must be removed from the surface. Any water leakages, non-uniform surface and corner edges must be repaired with suitable prepare mortar, minimum radius of 4 cm.

Before application, surface should be wetted (not allowed to be pond). Before application the surface must be seen wet.

Strength
Product strength is 1 year from date of production at proper storage conditions. Opened packages should be tightly closed and kept under appropriate storage conditions.

Mixing Procedure
Contrastly to other mixture method, first INNOPUR SEAL 300 put in a case. While mixture water is added, begin to stir at the same time. Product should be mixed with 400-600 rev/min mixing drill for 3-5 min until the mixture become homogeneous and should be allowed to rest for 2 minutes. Then stir again for 1 min. to make the mixture ready to use.

For 1 kg INNOPUR SEAL 300, 0.3 lt water is used. According to full package of INNOPUR SEAL 300, 6 lt water is enough. The density of the mixture is 2 kg/lt.

Surface Application
Apply INNOPUR SEAL 300 mixture on water saturated and moist appearance surface by blush. This material should be applied in two layer. Waiting time between coatings must be 3-5 hours. The second layer must be applied when the first layer achieve the sufficient hardness.
Storage

Store the product in a cool, dry place. Material also must be protected from frost. Short-term storing; max. 3 pallets should be superpose. Long-term storing; pallets should not be superpose.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>INNOPUR SEAL 300:</th>
<th>Cement, Mineral Fillers, special additions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>Grey</td>
</tr>
<tr>
<td>Pressure Strength:</td>
<td>15N/mm² (28 days)</td>
</tr>
<tr>
<td>Resistance to Pressure Water:</td>
<td>4 bar negative, 10 bar positive</td>
</tr>
<tr>
<td>Solid Temperature:</td>
<td>+5°C → +25°C</td>
</tr>
<tr>
<td>Service Temperature:</td>
<td>+20°C → +80°C</td>
</tr>
<tr>
<td>Pot Life of Fresh Mixture:</td>
<td>20 min</td>
</tr>
</tbody>
</table>

PS: The informations above is given according to +23 °C and 50% humidity. High temperatures shorten the curing time and low temperatures increase the curing time.
INNOPUR SEAL 400

Two component, cement and polymer dispersion based, applied to both negative and positive direction waterproofing material

**Product Description**

INNOPUR SEAL 400 is a cement and polymer dispersion based waterproofing material that can apply on both negative and positive directions. The coating cures to form a water impermeable membrane with excellent adhesion to the substrate. INNOPUR SEAL 400; blocks the surface moisture, leaks and surface water perfectly.

**Uses**

- Waterproofing of interior and exterior areas, from the vertical and horizontal direction of water.
- Waterproofing of foundation and sustaining wall.
- Waterproofing of water tanks and tunnels.
- Waterproofing of Semi-Olimpic Swimming Pools.
- Waterproofing of elevator pits.
- Waterproofing of flower plantation.
- Waterproofing of nutrient storage.
- Waterproofing of reinforced concrete pipes.
- Waterproofing of fish growth ponds.
- Waterproofing of hydroelectric power plants.

**Consumption**

INNOPUR SEAL 400 must be applied 1.50 kg/m² as the first layer, 1.20 kg/m² as the second layer, 1.20 kg/m² as the third layer.

**Advantages**

- It can be easy prepared and applied.
- It has a long working time.
- It can be applied with roller or spraying machine.
- It is effective on both negative and positive directions. (4 bar negative – 10 bar positive)
- It has a high durability.
- It has high adhesion resistance. It works with the surface it adhered.
- It has capillary effect.
- It is watervapor and air permeable.
- It has resistant to frost.
- It has skrink and crack resistance.
- It is semi-elastic and watertight.

**Packaging**

INNOPUR SEAL 400 consist of Component A in reinforced polyethylene paper bag net 25 kg and Component B in plastic drum net 2 kg.

**Application**

**Surface Preparation**

Surface should be dry, clean, free of any defects. Any oil, rust, paraffin, paint, bitumen remnants easily detachable and loose parts and dust should be cleaned on the surface. Iron and wooden wedges must be removed from the surface. Any water leakages, non-uniform surface and corner edges must be repaired with suitable prepare mortar, minimum radius of 4 cm.

Before application, surface should be wetted (not allowed to be pond). If the Coating Material loses its water immediately and gets matt that shows the surface does not get wet sufficiently or dry fastly. At such as hot weathers or in case of material is exposed to wind, water added up to 10% of B Component to the mixture prepared for first layer.

**Strength**

Product strength is 1 year from date of production at proper storage conditions. INNOPUR SEAL 400 Component B, freezes at the temperatures below 0°C. Opened packages should be tightly closed and kept under appropriate storage conditions.

**Mixing Procedure**

B component of INNOPUR SEAL 400 stills in to a clean mixing container. While A component is added slowly, mixture should be mixed with 400-600 rev/min mixing drill. Components A and B should be stirred for minimum 3-5 minutes until you have a homogenous mixture and should be allowed to rest for 2 minutes. Then stir again for 1 min. to make the mixture ready to use.

A component of INNOPUR SEAL 400 (25 kg), B component of (2 kg) and 5-5.5 kg water still and the density of this mixture is 1.98 kg/l.

**Surface Application**

Apply INNOPUR SEAL 400 mixture on water saturated and moist appearance surface by blush. This material should be applied in two or three layer. Direction of brush application should be perpendicular to each other. Waiting time between coatings must be 3-5 hours. The second layer must be applied when the first layer achieve the sufficient hardness.
Storage

Store the product in a cool, dry place. Material also must be protected from frost. Short-term storing : max. 3 pallets should be superpose. Long-term storing ; pallets should not be superpose.

TECHNICAL SPECIFICATIONS

| INNOPUR SEAL 400 Component A:       | Special Cement, Mineral Fillers, Polymer |
| INNOPUR SEAL 400 Component B:       | Liquid Polymer Dispersion                |
| Colour:                             | Grey                                     |
| Adhesion Strength:                  | 1.50N/mm² (28 days)                      |
| Resistance to Pressure Water:       | 4 bar negative, 10 bar positive          |
| Water Vapor Permeability:           | 86-120                                   |
| Solid Temperature:                  | +5°C - +25°C                             |
| Service Temperature:                | +20°C - +80°C                            |
| Pot Life of Fresh Mixture:          | 45 min                                   |
| Ready to Use (impermeable to water):| 7 days                                   |
| Coating (Liquid or ceramic):        | 3 days                                   |

PS: The informations above is given according to +23 °C and 50% humidity. High temperatures shorten the curing time and low temperatures increase the curing time.
Crack Sealent Dilatation & Mastics
**INNOPUR FLEX PU 100**

Medium modulus, polyurethane sealant for expansion joints

**Product Description**

INNOPUR FLEX PU 100, is thixotropic, permanent elastic, cold applied and cold-to-use, singlecomponent, polyurethane elastomer (plastic), and filler material, used for lime and to fill joints. SNJF elastomer is a category 1. It shows the protective effect in contact with the ground and air moisture.

**Uses**

- Expansion joints in heavy and light prefabrication and traditional masonry.
- Joint sealer for medium movement joints.
- Interior decoration; tiles, ridge tales and plinths.
- Joint sealing for cracks.

**Consumption**

Depends on the volume of the joint or crack to be filled

**Advantages**

- Easy to apply (one component).
- Adheres perfectly on most of the construction materials: concrete, glass, anodized aluminum, wood material and so on.
- Water resistant.
- Maintains its mechanical properties over a temperature span of -30°C to +90°C.
- Frost resistant

**Application**

**Surface Preparation**

Surface is clean, dry and sturdy; all kinds of negative effects on the plastic adhesion must be free of dirt and grease. All loose materials must be removed (Dried for at least 28 days). Moisture content should not exceed 5%. Users should check plastic viscosity, spotting, and the compatibility of chemical (First performed on a small portion).

**Joint Making**

The joint should be measured right. The recommended width is between 10 and 30 mm. The joint width/depth ratio should be approximately 2:1

**Isolation Fill**

After the primer has dried, flexible, non-sticky in a joint filler (polyethylene strip) should be pressed into the joint. To prevent the formation of bubbles in the joint, be sure that the joint space are covered. INNOPUR FLEX PU 100 plastic is applied using a special gun or trowel. Use protective tape to a better shutdown. In narrow joints, plastic should be applied in a single motion. By large joints the plastic should be applied three places: The first two applications on the edges of the joint, the third should be made to fill. The surface should be straightened with soapy water. Press the edges of the plastic and the joint fill. In the meantime, bubble formation should be considered, and the protective strips should be removed. After polymerization, the surface can be painted. Acrylic or vinyl paints are used after being tested.

**Storage**

Plastics should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 50 -30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.
Technical Data

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULTS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness Shore A</td>
<td>15-25</td>
<td>ISO 868</td>
</tr>
<tr>
<td>Modulus</td>
<td>At 100% 0.15-0.25 Mpa</td>
<td>ISO 8339</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>&gt; 250%</td>
<td>ISO 8339</td>
</tr>
<tr>
<td>Elastic recovery</td>
<td>&gt; 70%</td>
<td>ISO 7389</td>
</tr>
<tr>
<td>Movement capability</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>-20°C ≤ T ≤ +80°C</td>
<td></td>
</tr>
<tr>
<td>Water vapor diffusion</td>
<td>≈ 32g/m2/24 hrs</td>
<td>NF30 018</td>
</tr>
</tbody>
</table>
INNOPUR FLEX PU 200

Two component, horizontal grade polyurethane sealant

DESCRIPTION:

INNOPUR FLEX PU 200, is a two component, horizontal grade polyurethane sealant ideal for large construction joints. Upon curing it produces a high performance sealant that also provides significant waterproofing, with excellent resistance to various climatic and temperature conditions. Furthermore, the sealant has very good resistance to chemicals and other severe exposures.

RECOMMENDED FOR:

- Sealing of large expansion construction joints
- Sealing of joints in Water tanks
- Sealing of joints in Irrigation channels
- Sealing of joints in airport runways

FEATURES & BENEFITS:

- Excellent resistance to ageing, microorganisms, fungi and several chemicals
- Suitable for potable water (certificate available upon request)
- Oven paint-able
- Remains elastic even below -40°C
- Resistant to both salt water and sweet water
- Good resistance to microorganisms and a variety of chemicals
- Good mechanical properties
- Special Primers available for almost any substrate

APPLICATION:

Recommended application temperature range varies between +5°C to +25°C. At higher temperatures, there is a decrease in the pot life of the material. Ensure that the joint to be filled is thoroughly cleaned and dried prior to application of the sealant. If the bottom of the joint is open, a polyethylene backing rod (or polystyrene) is inserted so as to leave a depth about half of that is the width of the joint. Apply a suitable primer depending on the condition of the substrate as well as the climatic conditions at the time of application:

- On porous substrate, use INNOPUR PRIMER-PU 100
- On humid substrates, use AQUA PRIMER or PU

INNOPUR FLEX PU 200, A & B are thoroughly mixed and the minal product is poured slowly into the joint. Alternatively the sealant may be applied by spatula or appropriate dispensing gun.

CLEANING:

Clean tools and equipment first with paper towels and then wipe by using Acetone or Xylene, etc.

PACKAGING:

2 Kg Component A + 4 Kg Component B and 4 Kg Component A + 8 Kg Component B

STORAGE – SHELF LIFE:

INNOPUR FLEX PU 200, can be kept for minimum 12 months in the original unopened packages at a temperature of ±20°C in dry places.
## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, at 20 °C</td>
<td>gr/cm³</td>
<td>ISO 2811 / DIN 53217 / ASTM D1475</td>
<td>1.4</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore A</td>
<td>ISO R868 / DIN 53505 / ASTM D2240</td>
<td>25±</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>°C</td>
<td>-</td>
<td>-40 up to 90</td>
</tr>
<tr>
<td>Application Temperature</td>
<td>°C</td>
<td>-</td>
<td>5 up to 40</td>
</tr>
<tr>
<td>Touch Free Time at 77deg F (25°C) &amp; 55% RH</td>
<td>hours</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Elongation at Brake</td>
<td>%</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Modulus at 100% elongation</td>
<td>N/mm²</td>
<td>ASTM D412 / EN-ISO-527-3</td>
<td>4</td>
</tr>
<tr>
<td>Resilience</td>
<td>%</td>
<td>DIN 52458</td>
<td>&gt;80</td>
</tr>
<tr>
<td>Toxicity</td>
<td>-</td>
<td>-</td>
<td>No restrictions as cured</td>
</tr>
<tr>
<td>Hydrolysis (8% KOH, 15 days @ 50°C)</td>
<td>-</td>
<td>-</td>
<td>No elastomeric property change</td>
</tr>
<tr>
<td>Hydrolysis (H2O, 30 days- cycle 60-100°C)</td>
<td>-</td>
<td>-</td>
<td>No elastomeric property change</td>
</tr>
<tr>
<td>HCl (PH=2, 10 days @RT)</td>
<td>-</td>
<td>-</td>
<td>No elastomeric property change</td>
</tr>
</tbody>
</table>
INNOPUR FLEX PU 300

Low Modulus, self-leveling, jet fuel resistant, polyurethane joint sealant

Product Description
INNOPUR FLEX PU 300, is a self-leveling, permanent elastic, cold applied and cold curing, two component, polyurethane elastomer (mastic) used for chalking and joint-sealing on horizontal surfaces.

INNOPUR FLEX PU 300 is based on pure elastomeric hydrophobic polyurethane resins, which result in excellent mechanical, chemical and natural element resistance properties. Cures by reaction of the two components.

Uses
INNOPUR FLEX PU 300 is used for:
- Caulk seals used in construction (horizontal).
- Joint sealing of horizontal movement joints.
- Crack filling mastic.

Consumption
Consumption depends on volume of the joint to be sealed

Advantages
- Simple application.
- Low viscosity.
- Self leveling for horizontal joints.
- Low modulus.
- Stagnating water resistant.
- Maintains its mechanical properties over a temperature span of -30°C to +90°C.
- Frost resistant.
- Jet fuel resistant

Packaging and Colors
INNOPUR FLEX PU 300, A+B is supplied in grey in 5+1 kg pails. Other colors may be supplied on demand.

Application

Surface Preparation
The surface needs to be clean, dry and sound, free of oils or any contamination, which may harmfully affect the adhesion of the mastic. Remove all loose material. Concrete surfaces must be dry and stable (at least 28 days). Moisture content should not exceed 5%.

Users must check that the mastic is compatible with the surface in terms of adhesiveness, staining and chemical compatibility (test a section first).

Joint Making
Correctly size the joint. We recommend a width between 10 and 30 mm. The width/depth ratio of the joint should be about 2:1.

Mixing & Sealing
INNOPUR FLEX PU 300, Component A well before using. Pour the entire content of the INNOPUR FLEX PU 300, Component B in the Component A pail and mix by low speed mechanical stirrer, according to the stipulated mixing ratio, for about 3–5 min.

Apply the INNOPUR FLEX PU 300, mastic by pouring it carefully into the prepared joint or crack. For a better finish, use protection strips.

Storage
Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°C -30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.
### Technical Data

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>RESULTS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition</td>
<td>Polyurethane mastic (Polyols+Isocyanate)</td>
<td></td>
</tr>
<tr>
<td>Mixing ratio A : B</td>
<td>5:1 by weight</td>
<td></td>
</tr>
<tr>
<td>Elongation at break</td>
<td>&gt;250%</td>
<td>ISO 8339</td>
</tr>
<tr>
<td>Elastic recovery</td>
<td>&gt; 70%</td>
<td>ISO 7389</td>
</tr>
<tr>
<td>Hardness (Shore A Scale)</td>
<td>25–30</td>
<td>DIN 53505, ASTM D 2240</td>
</tr>
<tr>
<td>Movement capability</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Solids content</td>
<td>100%</td>
<td>CALCULATED</td>
</tr>
<tr>
<td>Pot-Life</td>
<td>40 minutes</td>
<td></td>
</tr>
<tr>
<td>Curing time</td>
<td>12 hours</td>
<td></td>
</tr>
<tr>
<td>Final curing time</td>
<td>7 days</td>
<td></td>
</tr>
<tr>
<td>Application temperature</td>
<td>5°C to 35°C</td>
<td></td>
</tr>
</tbody>
</table>
INNOPUR BONDIT

Cement barrier for polymer dispersion shrinkage cracks system

DESCRIPTION

INNOPUR BONDIT, Shrinkage barrier chemical additives Concrete and mortar drying shrinkage experienced during the hydration water, and cracks could occur as a result -shrinkage barrier liquid admixture.

USES:

✓ Concrete structures that water don’t get through
✓ Structures subjected to freeze
✓ Chemical and environmental effects resistant of concrete
✓ Spray concrete
✓ Precast concrete production
✓ Prefabricated building elements

TECHNICAL CHARACTERISTICS:

✓ Increasing resistance to cracks
✓ Provides flexibility
✓ Provides tightness
✓ It can be used in all weather conditions
✓ It does not contain chlorine
✓ Due to the prevention of fractures of steel reinforcement in concrete, it provides protection against corrosion
✓ Provides increased durability of concrete
✓ Shrinkage barrier

CONSUMPTION:

Cement consumption; ~ 1 - 5 % (~ 5 - 10kg / m3 concrete) The tensile test for the optimum dosage should be made in advance.

PACKAGING AND STORAGE

30 kg drum, 125 kg barrel, 1000 kg IBC, pouring. In the original packaging, +50 °C / +250 °C, where it has to be dry and ventilated environment protected, stored away from direct sunlight and protected from freezing when it is more than 1 year shelf life.
NOVASEL MASTIC
Silicon based mastic

DESCRIPTION

NOVASEL MASTIC, universal silicone is an one component acetoxy based silicone sealant

Properties:

- Very easy application.
- Permanent colors, UV resistant.
- Stay permanently elastic after curing.
- High and low temperature resistance.
- No odor after curing.

Technical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>0.97±0.03 g/cm³</td>
</tr>
<tr>
<td>Application rate</td>
<td>500 g/min. (3.2 mm orifice, 6.3 Bar)</td>
</tr>
<tr>
<td>Tooling time</td>
<td>15 min. (23 °C, %50 humidity)</td>
</tr>
<tr>
<td>Tack free time</td>
<td>5 min. (23 °C, %50 humidity)</td>
</tr>
<tr>
<td>Hardness, Shore A</td>
<td>18</td>
</tr>
<tr>
<td>Elongation at break, %</td>
<td>&gt;400</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>1.3 MPa</td>
</tr>
<tr>
<td>Temperature resistance</td>
<td>-40 / +150 °C</td>
</tr>
</tbody>
</table>

Applications:

- Standard and butt glazing.
- General sealing and assembly.
- Bathroom, kitchen and other sanitary applications.

Packing:

Cartridges 310 ml. (30 pcs in a box)

Colors:

Transparent, white, black, gold oak, grey and Brown
INNOPUR FOAM 10 ( ENJECTION RESIN )

Flexible polyurethane foam, one component, low viscosity, injection resin.

DESCRIPTION:

INNOPUR FOAM 10, is a one component polyurethane, hydrophobic resin, which reacts with water to produce a flexible grout suitable for waterproofing and sealing cracks and joints of concrete surfaces, and for effectively stopping water leaks. Recommended for use on concrete elements subject to structural movements.

Application is by one component injection pump.

RECOMMENDED FOR

Stopping water leaks in such structures as:
- Foundations,
- Below-grade structures, e.g. garages,
- Tunnels & underpasses,
- Sewage systems,
- Tanks,
- Waterways & dams.

FEATURES & BENEFITS

Effective sealer of cracks & voids in concrete, especially in joints.
- Of low viscosity: Deep penetration with minimal pressure.
- Produces a flexible & completely hydrophobic foam.
- Easy to apply: One component with a very reasonable pot-life
- Highly resistant to fungi and other
- Friendly to the user and the environment: Contains no solvents or propellant gasses – safe to store, transport and use.

APPLICATION PROCEDURE

Clean the substrate using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed.

Mixing:

The proportion of catalyst added ranges from 0.5% to 5.0%, subject to temperature and humidity of the substrate. Prior to application, the mix should not be subjected to humidity, i.e. the container must be covered, so as to avoid a premature start of the reaction process.

Application:

Starting from minimum, gradually increase pump pressure until reaching the desired rate of injection. Its level depends on the size of the cavity to be filled and the condition of the substrate in general.

PACKAGING

5 lt, 20 lt, and 200 lt drums

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

SAFETY INFORMATION

INNOPUR FOAM 10, contains no solvents, is, nevertheless, classified as harmful. Nevertheless, you are advised to observe the standard safety rules: Apply using safety gloves and clothing. The MSDS (Material Safety Data Sheet) is available on request.
**TECHNICAL SPECIFICATIONS**

**WATER FOAM 10 (Catalyst)**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
<td>yellowish liquid</td>
<td></td>
</tr>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>300-500</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>1.05</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 110</td>
</tr>
<tr>
<td>Tack free time, @ 77 °F (25°C) &amp; 55% RH – subject to proportion of catalyst in the mix.</td>
<td>hours</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

**WATER FOAM 10 (Catalyst)**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNITS</th>
<th>METHOD</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Brookfield)</td>
<td>cP</td>
<td>ASTM D2196-86, @ 25 °C</td>
<td>65</td>
</tr>
<tr>
<td>Specific weight</td>
<td>gr/cm³</td>
<td>ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C</td>
<td>0.94</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D93, closed cup</td>
<td>&gt; 110</td>
</tr>
</tbody>
</table>
INNOPUR SEALENT FOAM

One component, moisture-curing and self-expanding aerosol polyurethane foam

DESCRIPTION

INNOPUR SEALENT FOAM is a single-component, moisture-curing and self-expanding aerosol polyurethane foam. It is designed for easy dispensing through the straw adapter included with each can.

It does not contain any propellant gases that are harmful to the ozone layer.

PROPERTIES

- Excellent adhesion & filling capacity and high thermal & acoustical insulation value.
- Excellent mounting capacity and stability.
- Adheres to almost all building materials with the exception of surfaces such as polyethylene,
- Teflon, silicone and surfaces contaminated with oils and greases, mold release agents and similar materials.
- Mould-proof, water-proof, over paintable.
- Cured foam dries rigid and can be trimmed, shaped and sanded.

APPLICATIONS

- Fixing and insulating of door and window frames.
- Filling and sealing gaps, joints and cavities.
- Filling of penetrations in walls.
- Insulating electrical outlets and water pipes.

INSTRUCTIONS

Optimal can temperature is +20 °C. Application (ambient) temperature is between +5 °C to +30 °C. Shake the can well before use. Screw the adapter on the valve. Hold the can upside own and activate the foam by pressing the valve. Moisturizing the surfaces and the foam improves adhesion and shortens curing time. Fresh foam can be cleaned by Foam Cleaner. Cured foam can be cleaned barely mechanically.

PACKAGING

INNOPUR SEALENT FOAM : 850 gr
INNOPUR GROUT

Cement based, high strength grout mortar

Product Description

INNOPUR GROUT is cement, high strength, non-shrinking, self-compacting grout.

Uses

- In the manufacture of curtains and column headers
- In the assembly of prefabricated concrete structural elements
- Power plants
- Fixing the base of steel columns
- All kinds of industrial machinery, generators, compressors and pumps for fixing
- Reinforced concrete and steel coil [heat insulation] filling the gaps that are left is used for applications in a controlled manner.

Packaging

25 kg polyethylene reinforced paper bags.

Advantages

- Alone mixed with water is poured into the mold and easy to apply.
- Provides high adhesion to concrete and the reinforcement
- Has a high compressive strength
- Freeze-thaw cycle resistant
- High fluid properties.
- Do not vomit water, plastics, and expanded in the early hardening phase
- The physical properties of the weather conditions during the service period does not change.
- Impermeable to water, resistant to chlorine, sulfate wastes, oils
- Does not shrink

Consumption

About 160 g of water for 1 kg INNOPUR grout should be used.

4 lt per 25 kg bag is sufficient. Mixture density 2/2.5 kg/lt. In order to achieve 1 cm thickness of approximately 19 kg/m² should be used with powder products

Application

Surface Preparation: Before the machine is placed in concrete grout coming loose and damaged areas should be cleaned surfaces should be roughened. Nuts and bottom surface of the contaminated oil, grease and dust, impurities must be cleaned of all kinds which could affect performance. The base plate must be previously opened the vent holes. Machinery placed location and scale should be set, then the position must not be changed at all. Setting blocks (shims) to be removed later, should be lightly oiled to prevent sticking of grout. After the installation and tuning of the machine runs for 6 hours before grouting cast concrete foundation should be saturated with water.

Mixing Procedure:

An appropriate amount of water described above is poured into a clean mixing mold package. INNOPUR bag was opened and water is added slowly while mixing the grout at a speed approximately 3-4 min until homogeneous 400-600 is stirred with the drill, the material should not be lumps. Up again after being rested for 3 minutes and mixed for 1 min the material is ready for application.

INNOPUR GROUT bag is opened and water is added slowly while mixing the grout at a speed approximately 3-4 min until homogeneous 400-600 is stirred with the drill, the material should not be lumps. Up again after being rested for 3 minutes and mixed for 1 min the material is ready for application.
Surface application:

Molds, grout will not absorb water and leakage of solid material will be made during the operation so as to withstand the forces must be installed to meet. On the losing side of the base plate grout between the casting and the mold cavity in the edge of 5 cm should be left. To give pressure into grout for spreading, the height of the mold according to the situation on the side of the casting should be considered. It may take such measures such as lubricate the surface of the concrete foundation, the first batch of castings normally make a slurry containing more than 5% water, using equipment such as pipes, pump or make pressure until 1.5 m for filling very large plaques. The edges of the plates to prevent leakage and one crushing aggregate to be used should be chosen as the no. 1 , 5-16 mm in diameter should be cleaned and washed prior to application. The air within the mold to avoid pinching, a two-sided breakdown should be avoided. In order to fill all the gaps in the mould, the steel is made to the placement of the tip of the hook should be made using a wire. After the application, the plates for 18-24 hours should not be taken. Wide range of surfaces open to the atmosphere, especially on hot, dry and windy environments with wet burlap or water for 24-48 hours and the ingredients must be protected against rapid evaporation setup. Adjustments wedges should not be taken before 2 days. After receiving the machine business, the loosening of the nuts and bolts should ve checked and if necessary, must be tightened.

Technical Specifications

<table>
<thead>
<tr>
<th>Chemical Structure</th>
<th>Contains mineral fillers and special polymer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Grey</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>[TS EN 106]</td>
</tr>
<tr>
<td>1 day</td>
<td>30 N/mm²</td>
</tr>
<tr>
<td>7 day</td>
<td>50 N/mm²</td>
</tr>
<tr>
<td>28 day</td>
<td>60 N/mm²</td>
</tr>
<tr>
<td>Rexitual strength (28 days)</td>
<td>[TS EN 196]</td>
</tr>
<tr>
<td>Adhesion Strength</td>
<td>8 N/mm²</td>
</tr>
<tr>
<td>Concrete(28 days)</td>
<td>NN/mm²</td>
</tr>
<tr>
<td>Steel(28 days)</td>
<td>NN/mm²</td>
</tr>
<tr>
<td>Modulus of elasticity(28 days)</td>
<td>2000 N/mm²</td>
</tr>
<tr>
<td>Application Thickness</td>
<td>min. 10 mm-max. 40 mm</td>
</tr>
<tr>
<td>The Temperature Of The Ground To Be Applied</td>
<td>+5 °C +30 °C</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>-20 °C +400 °C</td>
</tr>
<tr>
<td>Time of use(+20 °C)</td>
<td>45 mins</td>
</tr>
<tr>
<td>To be able to walk on time(+20 °C)</td>
<td>24 hours</td>
</tr>
<tr>
<td>Full Cure Time (20 ° C)</td>
<td>28 days</td>
</tr>
</tbody>
</table>

Note: The above values are given for the +23 °C and 50% relative humidity. High temperatures can shorten the duration of low temperatures will extend it.

INNOVA POLIMER KIMYA SAN.TIC.LTD.STI
Tel : +90 216 627-07-52 (pbx) Fax:+90 216 627-07-51
Web: www.innovapolimer.com M@il: info@innovapolimer.com
INNOVA POLYMERS FOR CHEMICAL INDUSTRIES & TRADE
Tel : +90 216 627-07-52 (pbx) Fax: +90 216 627-07-51
Web: www.innovapolimer.com M@il: info@innovapolimer.com

Surface Primers
Polyurea Water Insulating
Polyurethane Water Insulating
Foam Injection Insulating

Bitumen-Polyurethane Insulating
Cement Based Insulating
Protective Top Coats & Paints
Sealents-Dilatation & Mastics

INNOPUR
Flooring and Waterproofing