PROTEGOL® UR Coating 32-45/55 L
two-component polyurethane coating

**Description**

PROTEGOL® UR Coating 32-45/55 L is a two-component polyurethane coating. The product meets the requirements of DIN EN 10290:2002. Application is made by spatula, knife or brush. The product is a complementary product to PROTEGOL® UR Coatings for manual processing.

**Uses**

Coating of
- Field joints
- Pipes, pipe bends
- Fittings
- Tanks, containers
- Repair of coating imperfections
- Stripe coating of parts of complex shape-environment

**Benefits**

- Excellent corrosion protection
- Abrasion resistant
- Impact resistant
- Good chemical resistance

**Referenced standards**

DIN EN 10290:2002  Steel tubes and fittings for onshore and offshore pipelines - External liquid applied polyurethane and polyurethane-modified coatings

**Product data**

The following data has been obtained at +23°C unless otherwise stated:

<table>
<thead>
<tr>
<th>Type</th>
<th>polyurethane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component A (base)</td>
<td>polyol</td>
</tr>
<tr>
<td>Component B (hardener)</td>
<td>isocyanate</td>
</tr>
</tbody>
</table>

**Physical state:**

- Component A: pasty
- Component B: liquid

**Viscosity**

<table>
<thead>
<tr>
<th>Component</th>
<th>Temperature</th>
<th>Viscosity (mPa*s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp. A</td>
<td>25 °C</td>
<td>16300</td>
</tr>
<tr>
<td>Comp. B</td>
<td>25 °C</td>
<td>200</td>
</tr>
</tbody>
</table>

**Density (g/cm³)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp. A</td>
<td>1.49</td>
</tr>
<tr>
<td>Comp. B</td>
<td>1.24</td>
</tr>
<tr>
<td>Comp. A + B</td>
<td>1.43</td>
</tr>
</tbody>
</table>

**Mixing Ratio Comp A : Comp B**

- Gravimetric: 78.5:21.5
- Volumetric: 3.0:1.0

**Coating properties**

Recommended dry film thickness (DFT) ≥1500 µm

Actual required DFT may vary in certain applications, please contact us for technical clarification.

- Overcoating period, min.: 1 h
- Service temperature: -20 °C to 80 °C
- Short term temperature load without temperature gradient to the substrate: 110 °C
- T min substrate: 10 °C
- min. +3°C above dew point
- Processing temperature
  - Component A: 15 °C to 25 °C
  - Component B: 15 °C to 25 °C
- Max. relative air humidity: 80 %
- Potlife at 23 °C: 20 min
- Hardness Shore D: 70 ±5

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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion to steel, pull off test</td>
<td>16 MPa</td>
</tr>
<tr>
<td>Cathodic disbondment after 28 d</td>
<td>3,30 mm</td>
</tr>
<tr>
<td>at 23 °C</td>
<td></td>
</tr>
<tr>
<td>Specific electrical insulation</td>
<td>&gt;10^7 Ωm²</td>
</tr>
<tr>
<td>resistance after 100 d at 23 °C</td>
<td></td>
</tr>
<tr>
<td>Flexural strength</td>
<td>Req. fulfilled</td>
</tr>
<tr>
<td>Elongation at break [%]</td>
<td>12</td>
</tr>
<tr>
<td>Cleaning agent</td>
<td>Solvent B, G</td>
</tr>
</tbody>
</table>

**Colours**

- RAL 9011 - Graphite black
- RAL 5005 - Signal blue

Other colours on request (subject to technical feasibility and minimum order quantities)

**Coverage, theoretical**

Approx. 1.43 kg/m² at 1.000 µm DFT and not considering excess consumption.

**Packaging**

- Component A: tin 1.57 kg
- Component B: tin 0.43 kg

**Shipping and Storage Regulations, Application, Health and Safety**

**Storage:**
In a cool and dry place shelf life is approx. 24 months in tightly closed original packs.

**Maintenance of tools:**
Immediately after use, all tools should be cleaned with Solvent B, G.

Refer to our general work instructions for PROTEGOL® Coatings
Refer to our safety data sheets prior to use.
Carefully read and follow all safety instructions on labels and packaging. Handle and store material with care in accordance to the safety data sheets. Follow and observe any applicable local or national laws and regulations.

Regulations regarding explosion protection with regard to the construction and equipment of facilities (machines) can be found, among other sources, in the corresponding harmonized European standard (DIN EN 16985 "Spray booths for organic coating material - Safety requirements" (former DIN EN 12215 and DIN EN 13355)); furthermore, local laws and/or regulations must be observed.

Contact us to make sure you have the latest version of safety data sheet, technical data sheet and work instruction at hand.