Sikalastic®-841 ST
Liquid applied pure polyurea membrane

Product Description
Sikalastic®-841 ST is a two part, elastic, 100% solids, very fast curing pure polyurea liquid applied membrane. Sikalastic®-841 ST is for machine application only.

Uses
- For waterproofing and anticorrosion applications on steel, concrete and many other substrates:
  - Typical uses:
    - Protective coatings
    - Tank coatings/linings
    - Bridge coatings
    - Roof coatings
    - Walkways and balconies
    - Flooring and parking decks
    - Industrial and manufacturing facilities
    - Landscape and water containment
    - Power plants

Characteristics / Advantages
- Very fast reactivity and cure time
- Almost immediate return-to-service time
- Applicable in temperatures from -30°C to 70°C
- Performs in constant temperatures from -30°C to 120°C
- 100% solids with zero VOC
- Excellent crack-bridging properties
- Highly resistant to solvents, acids and caustics
- UV-resistant
- Excellent corrosion protection

Product Data

Form

<table>
<thead>
<tr>
<th>Appearance / Colours</th>
<th>ISO - Part A: clear liquid</th>
<th>Resin - Part B: amber or grey liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey ~ RAL 7005 or unpigmented (yellowish)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Packaging | Part A (net): 199.5 kg drum | Part B (net): 212.8 kg drum |
Storage

Storage Conditions / Shelf Life
Part A: 18 months
Part B: 18 months
From date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5° C and +30° C.

Technical Data

Chemical Base
Pure Polyurea

Density
Part A: ~ 1.05 kg/litre
Part B: ~ 1.12 kg/litre
All Density values at +23° C

Gel Time
6 to 20 seconds

Tack Free Time
60 to 120 seconds

Post Cure Time
24 hours

Solid Content
> 99%

Viscosity
Part A: ~ 720 to 880 mPas
Part B: ~ 315 to 385 mPas

Mechanical / Physical Properties

Tensile Strength
> 15 N/mm²

Shore D Hardness
~ 45 to 50

Elongation at Break
375 to 425 %

Abrasion Resistance
< 15 mg (CS 17/1000/1000) Taber Abrader Test

Resistance

Chemical Resistance
Sikalastic®-841 ST is resistant to many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance
Sikalastic®-841 ST performs in constant temperatures from -30° C to 120° C.

Application Details

Consumption / Dosage

<table>
<thead>
<tr>
<th>Coating System</th>
<th>Product</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>System for concrete structures</td>
<td>1 x Sikafloor®-156, Lightly broadcast with quartz sand, 0.3 - 0.8 mm</td>
<td>0.3 - 0.5 kg/m²</td>
</tr>
<tr>
<td></td>
<td>1 x Sikalastic®-841 ST</td>
<td>1.0 - 1.5 kg/m²</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ 1.08 kg/m²/mm</td>
</tr>
</tbody>
</table>

The performance and technical properties are not affected by UV exposure. Sikalastic®-841 ST is UV light resistant, but not colour stable under UV exposure. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.

Substrate Quality
The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

If in doubt, apply a test area first.
### Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.

Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor, SikaDur and SikaGard range of materials.

The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

High spots must be removed by e.g. grinding.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

### Application Conditions / Limitations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Substrate Temperature</strong></td>
<td>-30°C min. / +70°C max.</td>
</tr>
<tr>
<td><strong>Ambient Temperature</strong></td>
<td>-30°C min. / +70°C max.</td>
</tr>
<tr>
<td><strong>Substrate Moisture Content</strong></td>
<td>≤ 6% pbw moisture content.</td>
</tr>
<tr>
<td></td>
<td>Test method: Sika-®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet)</td>
</tr>
<tr>
<td><strong>Dew Point</strong></td>
<td>Beware of condensation! The substrate and uncured membrane must be at least 3°C above dew point to reduce the risk of condensation or blooming of the membrane finish.</td>
</tr>
</tbody>
</table>

### Application Instructions

#### Mixing

Part A : Part B = 50 : 50 (by volume)

Dose and mix with suitable two-part hot spray equipment. Both components must be heated up to between +60°C and +70°C. The accuracy of mixing and dosage must be controlled regularly with the equipment.

Sikalastic®-841 ST might not be diluted under any circumstances. Thoroughly mix Sikalastic®-841 ST part B resin material until a homogenous mixture and colour is obtained.

#### Application Method / Tools

Prior to application, confirm substrate moisture content, r.h and dew point.

**Primer:**

Prime prepared concrete with Sikafloor®-156. Sikafloor®-156 should not just be rolled or poured. In order to avoid the formation of pinholes, the primer must be brushed into the concrete surface, if necessary in two applications. After each application lightly broadcast with quartz sand 0.3 - 0.8 mm. In order to avoid the formation of blisters do not broadcast to excess.

**Waterproofing:**

Spray apply with suitable two-part hot spray high pressure equipment e.g. Graco Reactor E-XP2. (www.graco.com).

The proportioning equipment utilized must be capable of supplying correct pressure and heat for the appropriate hose length on a consistent basis.

#### Cleaning of Tools

Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.
Waiting Time / Overcoating

Before applying Sikalastic®-841 ST on Sikafloor®-156 allow:

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>24 hours</td>
<td></td>
</tr>
<tr>
<td>+20°C</td>
<td>20 hours</td>
<td></td>
</tr>
<tr>
<td>+30°C</td>
<td>16 hours</td>
<td></td>
</tr>
<tr>
<td>+45°C</td>
<td>14 hours</td>
<td>1 month</td>
</tr>
</tbody>
</table>

Before applying Sikalastic®-841 ST on Sikalastic®-841 ST allow:

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>6 hours</td>
<td></td>
</tr>
<tr>
<td>+20°C</td>
<td>5 hours</td>
<td></td>
</tr>
<tr>
<td>+30°C</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td>+45°C</td>
<td>3 hours</td>
<td></td>
</tr>
</tbody>
</table>

1) Assuming that any dirt has been carefully removed and contamination is avoided.

2) If the max. waiting time is exceeded then hand abrade the entire surface using a moderate 200 to 300 grit sandpaper. Clean the grinded surface using Sika Colma®-Reiniger. For larger areas Sikalastic®-Primer 2 must be applied as a bonding bridge.

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Notes on Application / Limitations

This product may only be used by experienced professionals.

Application by using 2-part hot spray high pressure equipment only.

Temperature of the substrate during application and curing: min. -30°C.

The performance and technical properties of Sikalastic®-841 ST are not affected by UV exposure. Sikalastic®-841 ST is UV light resistant, but not colour stable under UV exposure.

Please note: Always apply a test area first.

Curing Details

Applied Product ready for use

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Rain resistant after</th>
<th>Ready for foot(1) traffic (carefully)</th>
<th>Ready for traffic(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>~ 2 minutes</td>
<td>~ 8 minutes</td>
<td>~ 90 minutes</td>
</tr>
<tr>
<td>+20°C</td>
<td></td>
<td>~ 5 minutes</td>
<td>~ 60 minutes</td>
</tr>
<tr>
<td>+30°C</td>
<td></td>
<td>~ 4 minutes</td>
<td>~ 45 minutes</td>
</tr>
<tr>
<td>+45°C</td>
<td></td>
<td>~ 3 minutes</td>
<td>~ 30 minutes</td>
</tr>
</tbody>
</table>

Note:

1) Only for inspection or for application of the next layer.

2) Only for inspection, application of the next layer Not for permanent traffic.

Times are approximate and will be affected by changing ambient conditions.

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.
Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.