# Sikalastic®-830 N

Chemically resistant spray applied waterproofing membrane

## Product Description

Sikalastic®-830 N is a two part, solvent free, fast setting, spray applied membrane based on a polyurea / polyurethane combination with high chemical resistance.

Sikalastic®-830 N can only be spray applied with special two part spray equipment.

## Uses

Waterproofing membrane with high chemical resistance for concrete surfaces. For use on structures subject to mechanical and chemical exposure such as:

- Containment Bunds
- Tank farms
- Sewage treatment plants
- Silage tanks and troughs
- Ballast tanks
- Digest or tanks
- Washing installations (i.e. for vehicles, trains, planes etc.)
- Hydraulic structures

## Characteristics / Advantages

- Crack-bridging
- Abrasion resistant
- Fast curing
- High chemical resistance
- Applicable in temperatures from -10°C to 70°C
- Performs in constant temperatures from -20°C to 100°C

## Product Data

### Form

**Appearance / Colours**

- ISO - Part A: clear liquid
- Resin - Part B: amber or grey liquid
- Grey ~ RAL 7005 or unpigmented (yellowish)

**Packaging**

- Part A (net): 199.5 kg drum
- Part B (net): 214.7 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  Polyurea/Polyurethane Hybrid

Density  
Part A:  ~ 1.05 kg/litre  
Part B:  ~ 1.13 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:  ~ 650 to 950 mPas  
Part B:  ~ 650 to 950 mPas

Mechanical / Physical Properties

Tensile Strength  ~ 12 to 15 N/mm²

Shore D Hardness  ~ 50 to 60

Elongation at Break  125 to 200%

Abrasion Resistance  < 20 mg (CS 17/1000/1000)  Taber Abrader Test

Resistance

Chemical Resistance  Siklastic®-830 N is resistant to many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance  Siklastic®-830 N performs in constant temperatures from -20°C to 100°C.

Application Details

Consumption / Dosage

<table>
<thead>
<tr>
<th>Coating System</th>
<th>Product</th>
<th>Consumption</th>
</tr>
</thead>
</table>
| System for concrete structures | 2 x Sikafloor®-156, Lightly broadcast with quartz sand, 0.3 - 0.8 mm  
1 x Siklastic®-830 N | 0.3 - 0.5 kg/m²/layer  
1.0 - 1.5 kg/m²  
~ 1.08 kg/m²/mm |
| System for concrete structures with permanent UV-exposure | 2 x Sikafloor®-156, Lightly broadcast with quartz sand, 0.3 - 0.8 mm  
1 x Siklastic®-830 N  
1 x Siklastic®-810 + 15 wt.-% Thinner C  
1 x Sikafloor®-357 N | 0.3 - 0.5 kg/m²/layer  
1.0 - 1.5 kg/m²  
~ 1.08 kg/m²/mm  
0.05 – 0.09 kg/m²  
0.15 – 0.20 kg/m² |

Siklastic®-830 N has only a limited UV-resistance.

Areas which are permanently exposed to UV-light must be overcoated with a suitable protective coating such as Sikafloor®-357 N and the adhesion promoter Siklastic®-810 + 15 wt.-% Thinner C must be used. Sikafloor®-357 N is not suitable for permanent immersion.

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>Substrate Temperature</th>
<th>-10°C min. / +70°C max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient Temperature</td>
<td>-10°C min. / +70°C max.</td>
</tr>
<tr>
<td>Substrate Moisture Content</td>
<td>&lt; 4% pbw moisture content. Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet)</td>
</tr>
<tr>
<td>Dew Point</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

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®-830 N might not be diluted under any circumstances. Thoroughly mix Sikalastic®-830 N 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](http://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®-830 N 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 1)</td>
</tr>
</tbody>
</table>

Before applying Sikalastic®-830 N on Sikalastic®-830 N 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. -10 °C.

Sikalastic®-830 N has only a limited UV-resistance.

Areas which are permanently exposed to UV-light must be overcoated with a suitable protective coating such as Sikafloor®-357 N and the adhesion promoter Sikalistic®-810 + 15 wt.% Thinner C must be used. Sikafloor®-357 N is not suitable for permanent immersion.

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 traffic (carefully)</th>
<th>Ready for traffic</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>~ 2 minutes</td>
<td>~ 5 minutes</td>
<td>~ 60 minutes</td>
</tr>
<tr>
<td>+30°C</td>
<td>~ 2 minutes</td>
<td>~ 4 minutes</td>
<td>~ 45 minutes</td>
</tr>
<tr>
<td>+45°C</td>
<td>~ 2 minutes</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.