

# PRODUCT DATA SHEET

## Sikalastic®-844 XT

### CHEMICAL RESISTANT PURE POLYUREA MEMBRANE

#### DESCRIPTION

Sikalastic®-844 XT is a two part, elastic, 100 % solids, very fast curing and coloured pure polyurea, liquid applied membrane with excellent chemical resistance.

#### USES

Sikalastic®-844 XT may only be used by experienced professionals.

Sikalastic®-844 XT is used as:

- Abrasion resistant protective coating in industrial and manufacturing facilities
- Tank, bund and pit lining in sewage and waste water treatment plants
- Suitable for the use in areas with presence of biogenic sulphuric acid

#### CHARACTERISTICS / ADVANTAGES

- Very fast reactivity and curing time
- Almost immediate return-to-service time
- Applicable in temperatures from -20°C to +50°C
- Performs in constant dry temperatures from -30°C to +100°C
- Good crack bridging properties
- Excellent chemical resistance
- Excellent abrasion resistance
- UV light exposure may lead to yellowing and chalking
- Resistant to biogenic sulphuric acid

#### ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings

#### APPROVALS / STANDARDS

- Kiwa Polymer Institut GmbH, report No. P7074-1, 2011, Testing of static and dynamic crack bridging ability in accordance with DIN EN 1062-7, as well as bond strength after freeze-thaw-cycling with de-icing salt immersion and after thundershower cycling acc. DIN EN 13687-1 and -2, in combination with Sikafloor®-161
- KB-Hoch, report No. 100591, 2010, Reaction to fire classification according DIN EN ISO 13501-1

## PRODUCT INFORMATION

|                                     |   |                                   |               |
|-------------------------------------|---|-----------------------------------|---------------|
| <b>Chemical Base</b>                | pure polyurea   |                                   |               |
| <b>Packaging</b>                    | Part A (Isocyanate)   | 209.8 kg drums approx. 189 litres |               |
|                                     | Part B (Amine)  | 181.4 kg drums approx. 189 litres |               |
| <b>Appearance / Colour</b>          | Part A  | clear                             |               |
|                                     | Part B  | grey                              |               |
|                                     | Grey, approx. RAL 7005  |                                   |               |
| <b>Shelf Life</b>                   | Part A: 12 months<br>Part B: 12 months  |                                   |               |
| <b>Storage Conditions</b>           | The packaging must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +30 °C. Protected from direct sunlight. |                                   |               |
| <b>Density</b>                      | Part A  | approx. 1.11 kg/l                 |               |
|                                     | Part B  | approx. 0.96 kg/l                 |               |
| Density values determined at +23 °C |   |                                   |               |
| <b>Solid Content</b>                | ~ 99 %  |                                   |               |
| <b>Viscosity</b>                    | <b>Temperature</b>  | <b>Part A</b>                     | <b>Part B</b> |
|                                     | +20 °C  | ~1700 mPas                        | ~1700 mPas    |

## TECHNICAL INFORMATION

|                               |  |                        |                 |
|-------------------------------|--|------------------------|-----------------|
| <b>Shore D Hardness</b>       | 45–50  | (DIN 53505)            |                 |
| <b>Mechanical Resistance</b>  | ~100 mg  | H22 / 1000 g / 1000 cy | (ISO 5470-1)    |
|                               | ~108 mg  | H17 / 1000 g / 1000 cy |                 |
| <b>Tensile Strength</b>       | > 10 N/mm <sup>2</sup>   | (DIN 53504)            |                 |
| <b>Elongation at Break</b>    | 50–100 %   | (DIN 53504)            |                 |
| <b>Crack Bridging Ability</b> | Class A4   | Static                 | (DIN EN 1062-7) |
|                               | Class B3.1   | Dynamic                | (DIN EN 1062-7) |
| <b>Chemical Resistance</b>    | Sikalastic®-844 XT is resistant to various chemicals. Contact Sika technical service for specific information. |                        |                 |

## APPLICATION INFORMATION

|                                |   |
|--------------------------------|---|
| <b>Mixing Ratio</b>            | Part A : Part B = 1 : 1 by volume   |
| <b>Consumption</b>             | ~1.08 kg /m <sup>2</sup> / mm   |
| <b>Layer Thickness</b>         | > 2 mm  |
| <b>Product Temperature</b>     | > +65 °C  |
| <b>Ambient Air Temperature</b> | +1 °C min. / +40 °C max.  |
| <b>Relative Air Humidity</b>   | < 85 %  |
| <b>Dew Point</b>               | The substrate and the uncured membrane must be at least +3 °C above dew point to reduce the risk of condensation. Beware of condensation. |
| <b>Substrate Temperature</b>   | +1 °C min. / +50 °C max.  |
| <b>Curing Time</b>             | 24 h at +20 °C  |
| <b>Gel time</b>                | ~10 sec at +20 °C   |

## Waiting Time / Overcoating

| Temperature | minimum   | maximim |
|-------------|-----------|---------|
| +10 °C      | ~1 minute | 7 hours |
| +20 °C      | ~1 minute | 6 hours |
| +30 °C      | ~1 minute | 6 hours |

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

The surface must be clean, dry, free from adhesion preventing contaminants such as dirt, oil, grease damaged coatings, surface treatments, etc.. The pull of strength of the substrate shall not be less then 1.5 N/mm<sup>2</sup>.

### MIXING

Dose and mix with a suitable air driven or electrical plural component heated spray equipment. Both components must be heated up to the temperatures given in the related Product Data Sheet. The accuracy of mixing and dosage must be controlled regularly with the equipment. Thoroughly stir part B (Amine) using a drum stirrer until a homogenous colour is obtained.

### APPLICATION

Sikalastic®-844 XT is spray applied in a continuous spray application to achieve a homogeneous film.

### CLEANING OF TOOLS

Clean all tools with Thinner C immediately after use. The application equipment has to be cleaned and filled with Mesamoll. Hardened and/or cured material can only be removed mechanically.

## LIMITATIONS

- For spray application the use of protective health and safety equipment is mandatory.
- Application by using a 2-component hot spray equipment.
- Under UV and weathering colour will change
- Don't apply Sikalastic®-844 XT on substrates with rising moisture
- Freshly applied Sikalastic®-844 XT must be protected from damp, condensation and liquid water for at least 30 minutes
- The incorrect assessment of cracks may lead to reduced service life time and reflective cracking
- If, during application, heating is required don't use gas, oil, paraffin or other fossil fuel heaters. These produce a large quantity of CO<sub>2</sub> and H<sub>2</sub>O which may affect the final result

## BASIS OF PRODUCT DATA

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.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## ECOLOGY HEALTH AND SAFETY

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

### DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type sb) is 550 / 500 g/l (Limits 2007 / 2010) for the ready to use product. The maximum content of Sikalastic®-844 XT is < 500 g/l VOC for the ready to use product.

## 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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