

# PRODUCT DATA SHEET

## Sikalastic®-851

### LIQUID APPLIED POLYURETHANE/ POLYUREA HYBRID MEMBRANE

#### PRODUCT DESCRIPTION

Sikalastic®-851 is a two part, elastic, 100% solids, very fast curing and coloured Polyurethane/ Polyurea-Hybrid liquid applied membrane with moderate chemical resistance.

#### USES

Sikalastic®-851 may only be used by experienced professionals.

On Concrete:

- Waterproofing on concrete bridge decks, membrane underneath hot rolled asphalt, certified in accordance to BBA/HAPAS
- Waterproofing on concrete bridge decks, membrane underneath mastic asphalt, tested in accordance to ETAG 033
- Waterproofing for submersed structures
- Waterproofing for cut and cover structures
- Waterproofing on walkways and balconies
- Waterproofing on floors and car park decks
- Water retaining structures in power plants
- Tank, bund and pit lining in fresh water areas of sewage and waste water treatment plants

On Steel:

- Truck bed lining

#### CHARACTERISTICS / ADVANTAGES

- Very fast reactivity and curing time
- Almost immediate return-to-service time
- Applicable in temperatures from -10 °C to +50 °C
- Performs in constant dry temperatures from -30 °C to +100 °C
- Excellent crack bridging properties
- Moderate chemical resistance
- Good abrasion resistance
- Not UV resistant

#### ENVIRONMENTAL INFORMATION

Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings

#### APPROVALS / STANDARDS

- Coating for concrete protection according the requirements of EN 1504-2/2004, DoP 02 07 0 20 5001 0 000003, certified by FPC Notified Body and provided with CE-Marking
- KIWA Polymer Institut GmbH, report No. P9016-1-E, 2014, 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 in accordance with DIN EN 13687-1 and -2, in combination with Sikafloor®-161
- KIWA Polymer Institute GmbH, report No. P7934, 2014, Testing of the root resistance in accordance with DIN 4062
- Prüfinstitut Hoch, test report No. 140941, relation to fire classification in accordance with DIN EN 13501-1
- Dr. Kemski, determination of radon diffusion coefficient and radon diffusion length in accordance with DIN ISO 11665-10
- KIWA Polymer Institute GmbH, test report P-10064-1, test on accordance with German Guideline "Liquid applied waterproofing kits for buildings" (PG-FLK)

## PRODUCT INFORMATION

<b>Chemical Base</b>	Poyurethane/ Polyurea Hybrid		
<b>Packaging</b>	Part A	211 kg drums approx. 189 litres (Isocyanate)	
	Part B	202 kg drums approx. 189 litres (Polyol/ -amine)	
<b>Appearance / Colour</b>	Part A	clear	
	Part B	grey	
	Grey, approx. RAL 7004		
<b>Shelf Life</b>	12 month from date of production		
<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. 1.08 kg/l	
	Part B	approx. 1.04 kg/l	
	Density values determined at +20°C		
<b>Solid Content</b>	~99%		
<b>Viscosity</b>	<b>Temperature</b>	<b>Part A</b>	<b>Part B</b>
	+20°C	approx. 2300 mPas	approx. 2300 mPas

## TECHNICAL INFORMATION

<b>Shore A Hardness</b>	~85	(DIN 53505)	
<b>Mechanical Resistance</b>	~13 mg	H17 / 1000 g / 1000 cy	(ISO 5470-1)
	~480 mg	H22 / 1000 g / 1000 cy	
<b>Tensile Strength</b>	~11 N/mm <sup>2</sup>	(DIN 53504)	
<b>Elongation at Break</b>	~350%	(DIN 53504)	
<b>Crack Bridging Ability</b>	Class A5	Static	(DIN EN 1062-7)
	Class B4.2	Dynamic	(DIN EN 1062-7)
<b>Chemical Resistance</b>	Sikalastic®-851 is resistant to de-icing salts, bitumen, alkalis, fresh- and ground water and various chemicals. Contact Sika technical service for specific information.		

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Part A : Part B = 1 : 1 volume		
<b>Consumption</b>	~1.05 kg/m <sup>2</sup> per mm thickness		
<b>Layer Thickness</b>	~2 mm		
<b>Product Temperature</b>	Comp. A (ISO)	+70°C ...+80°C	
	Comp. B	+65°C ...+75°C	
<b>Ambient Air Temperature</b>	+1 °C min. / +40°C max.		
<b>Relative Air Humidity</b>	85 % max.		
<b>Substrate Temperature</b>	+1 °C min. / +50 °C max. Minimum 3 °C above dew point, beware of condensation		
<b>Curing Time</b>	24 h at +20 °C		
<b>Gel time</b>	~11 seconds at + 20 °C		

## APPLICATION INSTRUCTIONS

### APPLICATION

Dose and mix with a suitable air driven or electrical plural component heated spray equipment. Both components must be heated up to +70 °C. 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.

### 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

This product may only be used by experienced professionals.

For spray application the use of protective health and safety equipment is mandatory.

### 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.

### 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®-851 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.

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