

## PRODUCT DATA SHEET

# Sikalastic®-851

Liquid applied Polyurethane/ Polyurea Hybrid membrane

### 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

### PRODUCT INFORMATION

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### SUSTAINABILITY

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

### APPROVALS / CERTIFICATES

- 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 od 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, reation 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)

<b>Composition</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>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>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>Tensile strength</b>	~11 N/mm <sup>2</sup>	(DIN 53504)	
<b>Tensile strain 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>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>Waiting time to overcoating</b>	1–2 min at +20 °C

## 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.

## IMPORTANT CONSIDERATIONS

This product may only be used by experienced professionals. For spray application the use of protective

health and safety equipment is mandatory. Do not apply Sikalastic®-851 on substrates with rising moisture. On substrates likely to exhibit outgassing, apply during falling ambient and substrate temperatures. If applied during rising temperatures "pin holing" may occur from rising air. Product shall be used in conjunction with a safe system of work. Ensure an adequate assessment of all site risks has been conducted prior to work commencing. Do not use Sikalastic®-851 for indoor applications. Sikalastic®-851 is not UV light resistant and changes colour under UV exposure. However,

the performance and technical properties are not affected providing the exposure is maximum 4 weeks. It is therefore advisable to overcoat Sikalastic®-851 with UV protective top coat as early as possible. Please note: Always apply a test area first

## 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.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>. The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. 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 blow holes and voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids and surface leveling must be carried out using appropriate products from the Sikafloor®, Sikadur®, Sika® Monotop®, and Sikagard® range of materials. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum

### SUBSTRATE PREPARATION

The surface must be sound, of sufficient strength, clean, dry and free of dirt, oil, grease and other contamination. All substrate must be primed or mechanically cleaned. Grinding may be necessary to level the surface. Suitable substrates are, for example Concrete, bituminous felts. For detailed information regarding substrate preparation and primer chart please refer to Method Statement. Substrate Pre-Treatment Substrate Primer Cementitious substrates Sika® Concrete Primer or Sikafloor®-161 lightly broadcast with quartz sand, 0.3 – 0.8 mm, for example Sikadur®-507 Permanently submerged area Sikafloor®-161 lightly broadcast with quartz sand, 0.3 – 0.8 mm, for example Sikadur®-507 For the consumption rates and waiting time / overcoating please refer to the PDS of the appropriate primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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 cur-

rent 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.

**Sika Australia Pty Limited**

ABN 12 001 342 329

aus.sika.com

Tel: 1300 22 33 48

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