BUILDING TRUST

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.
Suitable for use in hot and tropical climatic conditions.

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

FEATURES

- 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

SUSTAINABILITY

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

CERTIFICATES AND TEST REPORTS

- 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 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)

PRODUCT INFORMATION

Composition	Poyurethane/ Polyurea Hybrid	
Packaging	Part A	211 kg drums, ~189 L (Isocyanate)
	Part B	202 kg drums, ~189 L (Polyol / amine)
Appearance and colour	Part A	Clear
	Part B	Grey
	Grey, approximately RAL 7004	
Shelf life	12 months from date of production	
Storage conditions	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.	
Density	Part A	~1.08 kg/l
	Part B	~1.04 kg/l
	Density values determined at +20 °C	
Solid content	~99 %	

Viscosity	**Temperature**	**Part A**	**Part B**
	+20 °C	~2300 mPas	~2300 mPas

TECHNICAL INFORMATION

Shore A hardness	~85		(DIN 53505)
Mechanical resistance	~13 mg	H17 / 1000 g / 1000 cy	(ISO 5470-1)
	~480 mg	H22 / 1000 g / 1000 cy	
Tensile strength	~11 N/mm²		(DIN 53504)
Tensile strain at break	~350 %		(DIN 53504)
Crack bridging ability	Class A5	Static	(DIN EN 1062-7)
	Class B4.2	Dynamic	(DIN EN 1062-7)
Chemical resistance	Sikalastic®-851 is resistant to de-icing salts, bitumen, alkalis, fresh- and ground water and various chemicals. Contact Sika Technical Department for specific information.		

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 1 : 1 (volume)	
Consumption	~1.05 kg/m² per mm thickness	
Layer thickness	~2 mm	
Material temperature	Comp. A (ISO)	+70 °C min. / +80 °C max.
	Comp. B	+70 °C min. / +80 °C max.
Ambient air temperature	+8 °C min. / +45 °C max.	
Relative air humidity	80 % max.	
Substrate temperature	+8 °C min. / +50 °C max. Min. 3 °C above dew point, beware of condensation	
Curing time	24 h at +20 °C	

Waiting time to overcoating	1–2 min at +20 °C
Gel time	~11 seconds at +20 °C

BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTATION

General Method Statement

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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

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.

SUBSTRATE PREPARATION

Concrete substrates must be prepared mechanically using abrasive blast cleaning, scarifying equipment, or grinder to level the surface, 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 levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® or Sika® MonoTop® 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.

PRIMING

Concrete / Cementitious substrates	Sikafloor®-161 or Sikafloor®-151, lightly broadcast with quartz sand, 0.3–0.8 mm, e.g. Sikadur®-507
Metal substrates	Sikalastic® Metal Primer N, lightly broadcast with quartz sand, 0.3–0.8 mm, e.g. 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.

MIXING

Dose and mix with a suitable air driven or electrical plural component heated spray equipment. Both components must be heated up to approximately 80 °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.

APPLICATION

Refer to General Method Statement.

CLEANING OF EQUIPMENT

Re-useable tools should be cleaned carefully with a suitable thinner (Xylene / MEK / Acetone). Hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.