

# PRODUCT DATA SHEET

## Sikalastic®-841 ST

### LIQUID APPLIED PURE POLYUREA MEMBRANE

#### PRODUCT DESCRIPTION

Sikalastic®-841 ST is a two part, elastic, 100% solids, very fast curing and coloured pure polyurea liquid applied membrane with good chemical resistance.

#### USES

Sikalastic®-841 ST may only be used by experienced professionals.

On concrete

- Bridge deck Waterproofing membrane
- Abrasion resistant protective coating in industrial and manufacturing facilities
- Waterproofing for cut and cover structures
- Waterproofing for submersed structures
- Waterproofing on walkways and balconies
- Waterproofing on floors and car park decks
- Water retaining structures in power plants
- Secondary containment structures
- Tank, bund and pit lining in sewage and waste water treatment plants

#### CHARACTERISTICS / ADVANTAGES

- Very fast reactivity and curing time
- Almost immediate return-to-service time
- Applicable in temperatures from +1°C to +50°C
- Performs in constant dry temperatures from -30°C to +100°C
- Excellent crack bridging properties
- Good chemical resistance
- Excellent abrasion resistance
- UV light exposure may lead to yellowing and chalking
- Not resistant to biogenic sulphuric acid

#### ENVIRONMENTAL INFORMATION

According USGBC LEED Rating Sikalastic®-841 ST conforms to the requirements of LEED EQ Credit 4.2: Low – Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100g/l

#### APPROVALS / STANDARDS

- Coating for concrete protection according the requirements of EN 1504-2/2004, DoP 02 07 02 05 001 0 000014, certified by FPC Notified Body and provided with CE-Marking
- Geoscope GmbH, project No. 131303B, 2013, Determination of the durability of the synthetic membrane Sikalastic-841 ST in an autoclave, based on DIN EN ISO 13438
- BBA/ HAPAS certificate 13/H204 for the use as bridge deck waterproofing membrane according UK standard
- ETA 033 certificate, No. 13/0653 according ETAG 033
- KIWA Polymer Institut GmbH, report No. P7074-2, 2013, 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
- Tuesday Laboratories Inc, certificate for the use in drinking water installations according NSF-ANSI 61, section 6
- KIWA Polymer Institute GmbH, report No. P7934, 2013, Testing of the root resistance according DIN 4062

## PRODUCT INFORMATION

<b>Chemical Base</b>	pure Polyurea		
<b>Packaging</b>	Part A (Isocyanate)	212 kg drums approx. 189 litres	
	Part B (Amine)	191 kg drums approx. 189 litres	
<b>Appearance / Colour</b>	Part A	clear	
	Part B	grey	
	Grey, approx. RAL 7005		
<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. 1.12 kg/l	
	Part B	approx. 1.01 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. 1200 mPas	approx. 800 mPas
	+25°C	approx. 750 mPas	approx. 500 mPas

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~45 - 50	(DIN 53505)	
<b>Mechanical Resistance</b>	~230 mg	H22 / 1000 g / 1000 cy	(ISO 5470-1)
	~100 mg	H17 / 1000 g / 1000 cy	
<b>Tensile Strength</b>	>15 N/mm <sup>2</sup>	(DIN 53504)	
<b>Elongation at Break</b>	~ 360 %	(DIN 53504)	
<b>Crack Bridging Ability</b>	Class A5	Static	(DIN EN 1062-7)
	Class B4.2	Dynamic	(DIN EN 1062-7)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Part A : Part B = 1 : 1 volume
<b>Consumption</b>	approx. 1.05 kg / m <sup>2</sup> / mm
<b>Layer Thickness</b>	> 2mm
<b>Product Temperature</b>	> +65°C
<b>Ambient Air Temperature</b>	-20°C ... +50°C
<b>Relative Air Humidity</b>	< 85%
<b>Substrate Temperature</b>	+1°C ... +50°C
	≥ 3°C above dew point, beware of condensation
<b>Curing Time</b>	24 h / +20°C
<b>Gel time</b>	~ 11 sec / + 20°C
<b>Waiting Time / Overcoating</b>	1 to 2 min / +20°C

## APPLICATION INSTRUCTIONS

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.

The maximum layer thickness per application pass shall not exceed 4mm, for the build-up of higher thickness several passes have to be applied.

### 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 500 g/l (Limits 2010) for the ready to use product.

The maximum content of Sikalastic®-841 ST 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.

#### SIKA LIMITED

Watchmead  
Welwyn Garden City  
Hertfordshire, AL7 1BQ  
Tel: 01707 394444  
Web: [www.sika.co.uk](http://www.sika.co.uk)  
Twitter: @SikaLimited

#### SIKA IRELAND LIMITED

Ballymun Industrial Estate  
Ballymun  
Dublin 11, Ireland  
Tel: +353 1 862 0709  
Web: [www.sika.ie](http://www.sika.ie)  
Twitter: @SikaIreland



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