

# PRODUCT DATA SHEET

## Sikalastic®-8440

### POLYUREA SPRAY APPLIED CHEMICAL RESISTANT MEMBRANE

#### DESCRIPTION

Sikalastic®-8440 is a 2-part, pure polyurea, hot spray applied, elastic, very fast curing, waterproofing membrane. Provides a seamless, abrasion and chemical resistant finish for liquid retaining structures containing high levels of acid.

#### USES

Sikalastic®-8440 may only be used by experienced professionals.

- Abrasion resistant protective coating in industrial and manufacturing facilities
- Tank, bund and pit lining in sewage and waste water treatment plants
- Areas where biogenic sulphuric acid is present
- Internal lining of bio-mass ponds

#### CHARACTERISTICS / ADVANTAGES

- Seamless
- 100 % solids
- 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 and abrasion resistance
- Resistant to biogenic sulphuric acid

#### PRODUCT INFORMATION

<b>Composition</b>	Pure Polyurea		
<b>Packaging</b>	Component A (ISO)	225 kg drum	
	Component B (resin)	190 kg drum	
<b>Appearance / Colour</b>	Standard colour red brown. When product is exposed to direct sunlight there may be some discolouration and colour variation, this has no influence on the function and performance of the coating.		
<b>Shelf life</b>	Component A (ISO)	6 months from date of production	
	Component B (resin)	12 months from date of production	
<b>Storage conditions</b>	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C.		
<b>Density</b>	Component A (ISO)	~1,15	(EN ISO 2811-1:2011)
	Component B (resin)	~1,00	
<b>Solid content by weight</b>	~100 %		

## TECHNICAL INFORMATION

Shore D Hardness	~ 60	(EN ISO 868:2005)
Mechanical Resistance	< 40 mg < 40 mg	H22/ 1000/ 1000 CS17/ 1000/ 1000 (EN 5470-1:2001)
Tensile Strength	~ 13 MPa	(ISO 527-1:2012)
Elongation at Break	~130 %	(ISO 527-1:2012)
Tensile Adhesion Strength	> 1,5 MPa to concrete	
Tear Strength	~80 KN/m	(ISO 34-1:2010)
Chemical Resistance	Resistant to many chemicals. Contact Sika Technical Service for specific information.	

## APPLICATION INFORMATION

Mixing Ratio	Comp. A : Comp. B = 1 : 1		
Consumption	~1 kg/m <sup>2</sup> /mm		
Layer Thickness	≥ 2 mm		
Product Temperature	Comp. A (ISO): +60 - +70 °C Comp. B (resin): +60 - +70 °C		
Ambient Air Temperature	-15 °C min. / +70 °C max.		
Relative Air Humidity	≤ 85 %		
Dew Point	Beware of condensation! The substrate and uncured coating finish must be at least 3 °C above dew point to reduce the risk of condensation.		
Substrate Temperature	-10 °C min. / +60 °C max. Surface must be free from ice and condensation		
Substrate Moisture Content	Refer to product data sheet of the used primer		
Curing Time	24 h at +23 °C		
Gel time	4–7 seconds		
Waiting Time / Overcoating	<b>Substrate Temperature</b>	<b>Minimum</b>	<b>Maximum</b>
	10 °C	10–15 s	7 h
	23 °C	10–15 s	6 h
	30 °C	10–15 s	5 h

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

Cementitious substrates (concrete) shall be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum tensile strength of 1,5 N/mm<sup>2</sup>.

Substrates shall be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

### SUBSTRATE PREPARATION

Cementitious substrates shall be prepared mechanically using suitable abrasive blast/water jetting cleaning equipment to remove cement laitance and achieve an open textured surface profile suitable for the product thickness.

Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed.

Priming, repairs to the substrate, filling of cracks, blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before applying Sikalastic®-8440. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by vacuum cleaning equipment.

## MIXING

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 (resin) using a drum stirrer until a homogenous colour is obtained.

## APPLICATION

Sikalastic®-8440 is spray applied in a continuous operation to achieve a consistent thickness and surface finish.

## CLEANING OF EQUIPMENT

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

## IMPORTANT CONSIDERATIONS

- 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®-8440 on substrates with rising moisture
- Freshly applied Sikalastic®-8440 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 do not 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 water vapour which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Do not apply Sikalastic®-8440 on substrates with rising moisture

## 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.

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## 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/CE, 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®-8440 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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