

PRODUCT DATA SHEET

Sikalastic®-833 R

Polyurea hot spray applied membrane for roof waterproofing

DESCRIPTION

Sikalastic®-833 R is a 2-part, pure polyurea, hot spray applied, crack-bridging, roof waterproofing membrane. It requires an aliphatic top coat when applied to fully exposed roofs. Suitable for use in hot and tropical climatic conditions.

USES

Sikalastic®-833 R may only be used by experienced professionals.

For the following waterproofing applications:

- Exposed roofs on regulated markets according to ETA-005
- Flat and sloping fully exposed roofs to UV, protected by an aliphatic topcoat
- New construction and refurbishment projects
- Balcony and terrace decks underneath a protective layer (i.e. ballast, paving slabs, tiles)
- For exterior use only

CHARACTERISTICS / ADVANTAGES

- Thickness: ~2,0 mm
- Good resistance to ageing
- Good crack-bridging properties
- Colour added on site using coloured paste
- Seamless finish
- Good elasticity and elongation at break
- Fast application
- Applied by 2-Component hot spray equipment
- Easily detailed around complex geometries
- Good chemical resistance
- Available in various colours
- Good adhesion to many substrates with the appropriate primers
- Can be applied over bituminous membranes

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to European Technical Assessment ETA 19/0636, based on ETAG 005 Part 1 and Part 6 — Liquid applied roof waterproofing kits. Part 1: General. Part 6: Specific stipulations for Kits based on Polyurethane
- European Technical Assessment 19/ 0636 25/ 10/ 2019

PRODUCT INFORMATION

Composition	Pure polyurea		
Packaging	Part A (Polyamide)	185 kg drum	
	Part B (Isocyanate)	211 kg drum	
	Part C (Coloured paste)	4 kg (any RAL colour except silver gray)	
Colour	Available in various colours Applied colours selected from colour charts will be approximate. For colour matching: Apply colour sample and confirm selected colour under real lighting conditions. When product is exposed to direct sunlight (UV), there may be some discolouration, colour variation and chalking. Additional UV protection can be achieved by application of Sikalastic®-701 topcoat		
Shelf life	12 months from date of production		
Storage conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.		
Density	Part A (Polyamide)	1,05 kg/l	(EN ISO 2811-1)
	Part B (Isocyanate)	1,12 kg/l	
Values at +20 °C			
Solid content by mass	~100 % by weight		
Solid content by volume	~100 % by volume		

TECHNICAL INFORMATION

Shore A hardness	~90	(ISO 868)
Shore D Hardness	~40	(ISO 868)
Tensile strength	~14 MPa	(EN-ISO 527-3)
Tensile strain at break	~400 % (Elongation)	(EN-ISO 527-3)
Tear strength	~69 N/mm	(ISO 34-1 Method B)
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Services for additional information.	

SYSTEM INFORMATION

System structure

System

- Sikalastic®-833 R
- Sikalastic®-701
- Primers:

Substrate

Cementitious substrates, tiles, stones, ceramic tiles (unglazed)

Primer

Sikafloor®-151/-161, lightly broadcast with quartz sand*

or

Sika® Concrete Primer

Bituminous based membranes

Sikalastic® Metal Primer

Metal substrates

Sikalastic® Metal Primer

Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

* e.g. Sikadur®-507, Do not broadcast in excess

Consumption

Layer	Product	Consumption
Primer	Depending on the substrate	Refer to individual Product Data Sheet
Base coat	Sikalastic®-833 R	~2,0 kg/m ²
Top coat**	Sikalastic®-701	~0,33 kg/m ²

These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.

The consumption of the waterproofing layer can be increased according to the system expected service life requirements.

**If exposed to UV, the use of the topcoat will extend the lifetime of the membrane.

Optional top coats: Sikalastic®-622 UV/-622 E UV. Refer to the individual Product Data Sheets.

Dry film thickness

~2,0 mm

System performance

W3 / S / P4 / S1 – S4 / TL3 / TH4

APPLICATION INFORMATION

Mixing ratio

Part A : Part B = 1 : 1 (by volume)

Part A : Part B = 1 : 1,03 (by weight)

Product temperature

Part A (Polyamide) +70 °C

Part B (Isocyanate) +65 °C

Hose +65 °C

Air Pressure of the spraying equipment must be ~170 bar.

Spray equipment fine temperature adjustments could be helpful to obtain equal output pressures of the 2 parts.

Higher temperatures provide lower viscosity & lower pressure.

Ambient air temperature

+5 °C min. / +50 °C max.

Relative air humidity

≤85 % max

Substrate temperature

+5 °C min. / +55 °C max.

Dew point

Beware of condensation.

The substrate and uncured applied membrane must be at least +3 °C above dew point.

Substrate moisture content

≤4 % parts by weight.

The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).

Waiting time to overcoating

Before applying Sikalastic®-833 R on Sikalastic®-833 R allow:

Substrate Temperature	Minimum waiting time	Maximum waiting time
+10°C	~10 minutes	4 hours
+20°C	~10 minutes	3 hours
+30°C	~10 minutes	2 hours
+45°C	~10 minutes	1 hour

If the maximum waiting time / overcoating time is exceeded, Sika® Concrete Primer must be applied at consumption rate of 100 g/m² as an adhesion promoter between the layers. As an alternative, the membrane surface will need to provide a mechanical bond. This can be achieved by lightly abrading with mechanical abrasive equipment to remove all the surface sheen. Select the abrasive grit size and intensity of abrading depending on the condition of the membrane. Then completely remove all the dust by industrial vacuuming equipment. The final prepared surface must not have any sheen residue present.

Before applying Sikalastic®-701 on Sikalastic®-833 R allow:

Substrate Temperature	Minimum waiting time	Maximum waiting time
+10°C	~2 hours	~24 hours
+20°C	~2 hours	~24 hours
+30°C	~2 hours	~24 hours
+45°C	~2 hours	~24 hours

If the maximum waiting time / overcoating time is exceeded, provide a mechanical bond as detailed above for Sikalastic®-833 R on Sikalastic®-833 R.

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Tack free time

~10 minutes

Drying time

Gel time mixture A+B (20 g)

- 8–9 seconds at +25 °C
- 4–6 seconds at +60 °C

Applied product ready for use

Rain Resistant: ~10 minutes

Time is approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

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 INFORMATION

- Sika Method Statement: Sikalastic®-833 R

IMPORTANT CONSIDERATIONS

Refer to the Sika Method Statement: Sikalastic®-833 R

- For spray application the use of protective health and safety equipment is mandatory.
- Sikalastic®-833 R must be applied by 2- Component hot spray high pressure equipment.
- Under UV and weathering discolouration and colour variation will occur.

- Product must only be applied in accordance with their intended use.
- Do not apply on substrates with rising moisture or are unstable.
- On substrates likely to exhibit outgassing, apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising vapour. Sikalastic® Primer may assist with reducing or eliminating this effect.
- Do not use Sikalastic®-833 R for indoor applications.
- Do not apply near to running air intakes of air conditioning units. Switch off units and seal intakes before applying.
- Ensure bituminous substrates are primed otherwise discolouration will occur.

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

EQUIPMENT

Mixing and spraying

- Drum stirrer
- Air driven or electrical 2-Component heated spray equipment

Contact Sika Technical Services for local equipment suppliers.

SUBSTRATE PREPARATION

Refer to the Sika Method Statement: Sikalastic®-833 R
Suitable substrates

Concrete, bituminous felts and coatings, metal, brick masonry, asbestos cement, ceramic tiles.

General

All contamination such as dust, loose and friable material that could affect final finish or reduce adhesion, must be completely removed from all surfaces before application of the product or subsequent products, preferably by industrial vacuuming equipment.

MIXING

Refer to the Sika Method Statement: Sikalastic®-833 R

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Refer to the Sika Method Statement: Sikalastic®-833 R.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Thinner C immediately after use. 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.

SIKA NORTHERN GULF
Bahrain / Qatar / Kuwait
Tel: +973 177 38188
sika.gulf@bh.sika.com
gcc.sika.com

SIKA SOUTHERN GULF
UAE / Oman / SIC
Tel: +971 4 439 8200
info@ae.sika.com
gcc.sika.com

Sika Saudi Arabia Limited
P.O. Box 112356, Jeddah
Kingdom of Saudi Arabia
Tel. +966 12 692 70 79
email: info@sa.sika.com
web: gcc.sika.com

ISO 9001: Sika Saudi Arabia Co. Ltd
ISO 14001: Sika Saudi Arabia Co. Ltd

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