

PRODUCT DATA SHEET

Sikalastic® M 811 R ME

Two-component, spray-applied, polyurea / polyurethane hybrid roof waterproofing membrane

DESCRIPTION

Sikalastic® M 811 R ME is a two-component polyurea / polyurethane hybrid waterproofing membrane. It is highly reactive with rapid setting time and needs to be applied by special, two-component spray machine. Sikalastic® M 811 R ME cures to form an elastic, crack-bridging, seamless, waterproofing membrane. Suitable for use in hot and tropical climatic conditions.

USES

Sikalastic® M 811 R ME may only be used by experienced professionals.

- For use as a waterproofing membrane on flat and pitched roof structures with an additional top coat for UV-protection on exposed conditions.
- For use as a waterproofing membrane underneath planting or hard landscaping on podium areas.

- For use as a waterproofing membrane for other concrete structures and on non-trafficked concrete areas with an additional top coat for UV-protection.

FEATURES

- Total solids
- Fast application - application with two-component hot spray equipment
- Easy application to complicated details
- Fast curing with short overcoating time
- Seamless waterproofing membrane
- Elastic and crack bridging
- Excellent mechanical properties
- Good adhesion to most substrates
- Resistant to standing water
- Thermoset – does not soften at elevated temperatures

PRODUCT INFORMATION

Composition	Polyurea / polyurethane hybrid	
Packaging	Component A (Resin)	200 kg drum
	Component B (Iso)	200 kg drum
Appearance and colour	Component A (Resin)	liquid / grey
	Component B (Iso)	liquid / clear (yellowish)
	Cures to a grey membrane. UV light exposure may lead to yellowing.	
Shelf life	Component A (Resin)	12 months from date of production
	Component B (Iso)	12 months from date of production
Storage conditions	The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Higher storage temperatures may reduce shelf life of product. Reference shall also be made to the storage recommendations within the safety data sheet.	

Density	Component A (Resin)	1.03 g/cm ³
	Component B (Iso)	1.10 g/cm ³
Values at +25 °C		

Solid content	~100 %
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TECHNICAL INFORMATION

Shore A hardness	~85	(ASTM D2240)
Tensile strength	~10 MPa	(ASTM D412) Test Method A - Die C
Tensile strain at break	~350 %	(ASTM D412) Test Method A - Die C
Tear strength	~50 kN/m	(ISO 34-1)

APPLICATION INFORMATION

Mixing ratio	1:1 by volume	
Material temperature	Component A (Resin)	~60 – 80 °C
	Component B (Iso)	~60 – 80 °C
	Hose	~70 °C
Ambient air temperature	+5 °C min. / +50 °C max.	
Relative air humidity	85 % max.	
Dew point	Beware of condensation. The substrate and uncured applied membrane must be at least +3 °C above dew point.	
Substrate temperature	+5 °C min. / +50 °C max.	
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).	
Substrates	Suitable substrates: Concrete, bituminous felts and coatings, metal, brick masonry, ceramic tiles. Note: Suitable primer selection and correct substrate preparation is important. Contact Sika Technical Service Department for recommendations.	
Tack free time	~10 minutes	
Waiting time to overcoating	When building up thickness of Sikalastic® M 811 R ME allow:	
	Minimum waiting time	Maximum waiting time
	Immediate	~24 hours
	Before applying suitable topcoats allow:	
	Minimum waiting time	Maximum waiting time
	~2 hours	~24 hours
Applied product ready for use	~24 hours Time is approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.	
Gel time	~15 seconds at 25 °C	

SYSTEM INFORMATION

System structure	Layer	Product	Consumption
	1. Primer	Refer to Substrate-Primer table below	Refer to PDS of the primer
	2. Waterproofing	Sikalastic® M 811 R ME	≥ 1.60 kg/m ²
	3. UV protection (Required when exposed to UV Light)	Sikalastic®-701	≥ 0.30 kg/m ²

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: Sikalastic® M 811 R ME

IMPORTANT CONSIDERATIONS

- For spray application, the use of protective health and safety equipment specialized for polyurea product is mandatory.
- Sikalastic® M 811 R ME must be applied using a two-component, hot spray, high pressure equipment.
- Under weathering and UV exposure, 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® range of primers may assist with reducing or eliminating this effect.
- Do not apply Sikalastic® M 811 R ME on indoor applications without proper ventilation (defined by EHS site representative).
- 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 with Sikalastic® Metal Primer N, 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
 - High-pressure, two-component, heated spray equipment. The choice of machine depends to a large extent on the type and size of work contemplated
- Contact Sika Technical Services for recommendation.

SUBSTRATE PREPARATION

The preparation of the substrate and the use of the appropriate primer are of paramount importance. All surfaces to which Sikalastic® M 811 R ME will be applied must be sound, clean, dry and free from oil or grease, loose particles and any other substances which may impair adhesion.

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete and other cementitious substrates must have a minimum pull off strength of 1.5 N/mm². Metal substrates should be sand blasted to a Sa 2 ½ finish prior to application of the primer. Refer to Sikalastic® M 811 R ME General Method Statement for further details on substrate requirements and necessary pre-treatments.

PRIMING

Use the following guide to select the appropriate primer:

Substrate	Primer
Concrete, Ceramic tiles, Brick masonry	Sika® Concrete Primer, Sikafloor®-151 or Sikafloor®-161
Asphalt, Bituminous felt and coatings	Sikalastic® Metal Primer N
Metals: Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel	Sikalastic® Metal Primer N
Wood	Sika® Concrete Primer, Sikafloor®-151 or Sikafloor®-161
Existing Sikalastic® membrane	Sika® Concrete Primer

Note: For the consumption rates and waiting time / over-coating 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 suitable two-part hot spray equipment. The accuracy of mixing and dosage must be controlled regularly with the equipment. Stir well PTA drums before use to homogenise the content. Precondition the membrane components to the correct temperature 70–80 °C prior to application. Check mix ratios are correct at the start of spraying and regularly throughout the spraying procedure.

APPLICATION

Sikalastic® M 811 R ME can only be applied by means of a suitable two component heated, high pressure, proportioning spray equipment.

Sikalastic® M 811 R ME should only be applied to properly prepared substrates. Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures.

Due to the fast reaction, it is possible to rapidly build thicknesses. Surrounding areas should be protected from overspray by masking off. Care should be taken by using suitable barrier to prevent spray mist being carried by wind.

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions. Reference must be made to Sikalastic® M 811 R ME General Method Statement.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with a suitable thinner (Xylene / MEK / Acetone) immediately after use. Hardened material can only be removed mechanically. Sikalastic® M 811 R ME is a highly reactive material, thus, proper cleaning and maintenance of spray equipment is important.

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.



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May 2025, Version 01.01

020915601000242205