

PRODUCT DATA SHEET

Sika® FoamRoof I

TWO-COMPONENTS POLYURETHANE INSULATION FOAM WITH CLOSED CELLS FOR HOT SPRAY APPLICATION



DESCRIPTION

Two-component, polyurethane, closed cell rigid foam, with high insulation properties, for spray application.

USES

- Insulation of floors, roofs, walls and ceilings
- Insulation of pipes, systems, etc.
- Uniform layer of irregular supports before waterproofing systems

CHARACTERISTICS / ADVANTAGES

- Very rapid curing time
- High insulating power
- Waterproof
- Permeable to water vapour
- Formulated with expanding agents that don't affect ozone (OPD=0)

APPROVALS / CERTIFICATES

CE marked according to EN14315-1:2013

PRODUCT INFORMATION

Composition	Two-component polyurethane	
Packaging	Component A (Isocyanate):	250 kg drum
	Component B (Resin):	220 kg drum
Colour	Yellow	
Shelf life	6 months from date of production	
Storage conditions	Stored in closed, sealed and undamaged packaging, in dry conditions at temperatures between +5 °C and +25 °C. Protect from frost and from direct exposure to sunlight. Storage at temperature higher than required, can reduce the shelf life.	
Density	Component A	~ 1,22 kg/L
	Component B	~ 1,12 kg/L
	Density of polymerized product (A+B):	
	Density after free expansion	~ 32 kg/m ³
	Density in deep	~ 41 kg/m ³

TECHNICAL INFORMATION

Compressive Strength	1,8 - 2,1 kg/cm ²	(UNI 6350)	
Reaction to Fire	Class E	(EN 13501-1:2009)	
Thermal Conductivity	Initial thermal conductivity: 0,023 w·m ⁻¹ ·k ⁻¹	(EN 12667:2002)	
	Declared Thermal Conductivity: Coating type: open face diffusion		
	Thickness	Declared Thermal Conductivity (UNI EN 14315-1:2013 All.C)	Declared Thermal Resistance R_D (m² K/W) (EN 14315-1:2013)
	30 mm	0,033 w·m ⁻¹ ·k ⁻¹	0,91
	35 mm	0,033 w·m ⁻¹ ·k ⁻¹	0,91
	40 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,21
	45 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,21
	50 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,52
	55 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,52
	60 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,82
	65 mm	0,033 w·m ⁻¹ ·k ⁻¹	1,82
	70 mm	0,033 w·m ⁻¹ ·k ⁻¹	2,12
	75 mm	0,033 w·m ⁻¹ ·k ⁻¹	2,12
	80 mm	0,033 w·m ⁻¹ ·k ⁻¹	2,42
	85 mm	0,033 w·m ⁻¹ ·k ⁻¹	2,42
	90 mm	0,033 w·m ⁻¹ ·k ⁻¹	2,73
Diffusion Resistance to Water Vapour	μ=38	(EN12086:2013)	

APPLICATION INFORMATION

Ambient Air Temperature	Minimum +15°C
Substrate Temperature	Minimum +15°C Beware of condensation. Substrate temperature must be +3 °C above dew point.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be clean, dry, free from dirt, dust, oil, grease, damaged coatings, surface treatments or any other contaminants that can prevent the adhesion.

Broadcasted bituminous membranes

Only broadcasted bituminous membranes are allowed, which must be dimensionally stable and properly fixed to the substrate. In case of loose areas provide a suitable fixing (e.g. mechanical). Power-washing is mandatory.

Concrete and tiles

Remove mechanically all loose part and laitance. Glazed tiles must be mechanically prepared (e.g. grinding) to get a sufficiently rough surface. Remove any dust by vacuum cleaning. Superficially weak substrate can be primed by Sika® Primer Roof PU or other suitable Sika® Primer.

Metal

Power-washing is mandatory. Remove any oxidation by abrasion. Apply Sikalastic® Metal Primer on all metal substrate. In case of existing coatings, they must be well in adhesion and preliminary adhesion tests ("peeling") are mandatory. Contact our Technical Service for further information.

APPLICATION METHOD / TOOLS

Once sprayed by suitable mixing gun & equipment, two components expand and create a rigid foam layer on substrate. The application must be carried out by suitable equipment (bi-mixer) for hot spray two-component products. The equipment used must be able to supply the necessary pressure, and adequate heating of hoses. Both components, both in the drums and in the hoses must be heated to 35 - 40 ° C. The correct mixing ratio (1:1 by vol.) must be kept constant by proper pumping equipment. It is recommended to use a suitable air dryer filter on the ISO component (isocyanate) to protect the component from moisture. Provide suitable elastic systems to cover joints, fittings, or cracks subject to significant movements. Contact the Technical Service for more information.

Especially with low temperatures it is advisable to apply and let polymerize a first thin layer of product (~3mm), in order to help the anchoring of successive thick layers. The thickness of each layer must not exceed 3 cm. If the total final thickness of the insulating layer is expected to be >6 cm, each single layer must not exceed 2 cm thickness. Before applying a new layer, wait for the polymerization of the underlying one, which must have cooled (<30 °C).

Curing time

Gel time	10-12 seconds
Touch dry time	14-18 seconds

Note: times (acc. to EN 14315-1 All. E) are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

IMPORTANT CONSIDERATIONS

- Application is by 2-part hot spray equipment only.
- For spray application the use of protective health and safety equipment is mandatory.
- Always refer to the manufacturer's instructions before use the tools and mixing equipment.
- Products shall only be applied in accordance with their intended use.
- Do not apply Sika® FoamRoof I on substrates with rising moisture.
- 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. Refer to the product safety datasheet for further guidance.
- Sika® FoamRoof I is not UV light resistant and changes colour under UV exposure. Provide a suitable Sikalastic® protective top-coat as early as possible. Contact the Technical Service for more information.
- Do not apply on surfaces in FPO and PVC.
- Do not apply in close proximity to the air intakes of functioning air conditioning systems.
- Do not apply in windy conditions above approx. 5 m/sec.

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.

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 safe handling, storage and disposal of chemicals, the user must refer to the most recent sheet Security, containing physical, ecological and toxic data logical and other related safety data.

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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