

# PRODUCT DATA SHEET

## Sika Boom<sup>®</sup> FR

### FIRE-RETARDANT POLYURETHANE FOAM

#### DESCRIPTION

Sika Boom<sup>®</sup> FR is a 1-component, fast curing, polyurethane foam retarding fire up to 5 hours.

#### USES

Sika Boom<sup>®</sup> FR is designed for linear joints in brickwork and concrete where fire protection is required.

#### CHARACTERISTICS / ADVANTAGES

- 1-Component
- Easy application with nozzle
- Fast curing
- Very good thermal insulation
- Effective sound dampening
- HFC-free

#### APPROVALS / CERTIFICATES

- DIN 4102: B1 fire rating class
- BS 476-20: fire rated up to 5 hours fire protection

#### PRODUCT INFORMATION

<b>Composition</b>	1-Component polyurethane	
<b>Packaging</b>	750 ml can with rubber valve, 12 cans per box	
<b>Colour</b>	Pink	
<b>Shelf life</b>	Sika Boom <sup>®</sup> FR has a shelf life of 12 months from the date of production, if stored properly in undamaged, original, sealed packaging, and if the storage conditions are met. Opened cans of Sika Boom <sup>®</sup> FR must be used within 4 weeks.	
<b>Storage conditions</b>	Sika Boom <sup>®</sup> FR shall be stored in an upright position, in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +25 °C.	
<b>Density</b>	~21 kg/m <sup>3</sup>	
<b>Water Absorption</b>	< 1 % of volume (cut surface)	(DIN EN 12087)

#### TECHNICAL INFORMATION

<b>Compressive Strength</b>	~0.06 N/mm <sup>2</sup> (with 10 % deformation)	(ISO 844)
<b>Tensile Strength</b>	~0.11 N/mm <sup>2</sup>	(ISO 1926)
<b>Shear Strength</b>	~0.05 N/mm <sup>2</sup>	(ISO 1922)
<b>Dimensional Stability</b>	± ~10 %	
<b>Joint Permeability to Water Vapour</b>	μ = 19, sd = 1.1 m (d = 59 mm, ρ = 14 kg/m <sup>3</sup> )	(ISO 12572)

<b>Thermal Conductivity</b>	~0.039 W/mK	(EN 12667)
<b>Sound Insulation</b>	R <sub>ST,w</sub> (C;Ctr) = 61 (-1; -5) dB	(ift SC-01/2)
<b>Service Temperature</b>	-40 °C min. / +80 °C max. (temporary exposure up to +100 °C)	

## APPLICATION INFORMATION

<b>Yield</b>	750 ml can	~38 l
	Consumption can be regulated by adjusting the pressure on the trigger.	
<b>Ambient Air Temperature</b>	Optimum	+18 °C min. / +25 °C max.
	Permissible	+5 °C min. / +35 °C max.
<b>Relative Air Humidity</b>	30 % min. / 95 % max.	
<b>Substrate Temperature</b>	Optimum	+18 °C min. / +25 °C max.
	Permissible	+5 °C min. / +35 °C max.
<b>Cutting Time</b>	~23 min (after which a 20 mm bead can be cut). Sika Boom® FR is fully cured after 12 h.	
<b>Tack free time</b>	~11 min	

## APPLICATION INSTRUCTIONS

For the application of Sika Boom® FR all generally accepted rules of building and construction apply.

### SUBSTRATE PREPARATION

The substrate must be clean, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Paint, cement laitance and other poorly adhering contaminants must be removed. Sika Boom® FR adheres without primers and/or activators. Pre-dampen the substrate with clean water, this ensures that the foam cures properly and also prevents secondary foam expansion.

### APPLICATION METHOD / TOOLS

Shake the Sika Boom® FR can well for minimum 20 seconds before use. Repeat shaking after long interruptions of use. Screw the nozzle firmly into place without pressing the trigger or the valve. The amount of expanding foam extruded can be regulated by applying more or less pressure on the trigger. Fill deep joints in several layers. Take care to allow each layer to cure and expand sufficiently by spraying water between each layer or allowing sufficient waiting time between the layers. Do not fill hollow sections completely as the foam expands during curing. All building elements must be temporarily fixed until the foam has fully cured.

### CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately with Sika Boom®-Cleaner and/or Sika® Remover-208. Once cured, residual material can only be removed mechanically.

## FURTHER INFORMATION

- Safety Data Sheet

## IMPORTANT CONSIDERATIONS

- The minimum can temperature for application must be +10 °C.
- In order to get a good quality foam, the can temperature should not vary more than 10 °C from the ambient temperature.
- Protect the can from direct sunlight and temperatures above +50 °C (danger of explosion).
- For correct curing of the foam, moisture is necessary.
- Applying insufficient moisture may lead to subsequent unintended foam expansion (post expansion).
- Do not fill hollow sections completely as the foam expands during curing.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and silicone, oil, grease and other separating agents.
- Sika Boom® FR is not resistant to UV light.
- Read all safety and technical recommendations which are printed on the Sika Boom® FR can.

## 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.

## 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 the exact product data and uses.

## 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.

## 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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