

Sika Boom[®] FR

1-part, high yield, fire-retardant polyurethane foam

Product Description / Uses	Sika Boom [®] FR is designed for linear joints in brickwork and concrete where fire protection is required.
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| Advantages | <ul style="list-style-type: none">■ High yield■ Multi-positioning foam. Can be applied in all positions (360°)■ Easy application with valve nozzle (adapter)■ Suitable for application at lower temperatures (+5°)■ Fast curing■ Excellent temperature insulation■ Effective sound dampening■ Ageing resistant■ CFC/HFC-free■ Resistant to temperatures ranging from -40°C to +100°C |
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Approval / Standard	B1 Fire rating class, tested to BS476 Part 20: fire rated up to 5 hours fire protection. Warrington fire test report is available on request.
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Product Data

Colour	pink
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Packaging	750 ml can rubber valve (12 cans per box)
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Storage Conditions / Shelf Life	12 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +5 °C and +25 °C.
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The aerosol can has to be stored in a vertical position!
An opened can must be used within ~ 4 weeks.

Construction



Technical Data

Chemical Base	1-part Polyurethane, moisture curing
Density	21 kg/m ³ (± 3 kg/m ³)
Tack Free Time	11 minutes approx. ¹
Curing Time	A 20 mm bead of expanded foam can be cut after 23 minutes approx. ¹ . Full cured after 12 hours ¹ .
Service Temperature	-40°C to +80°C (temporary exposure up to +100°C)
Thermal Conductivity	0.04 W/mK approx. ¹ (DIN 52 612)
Water Absorption Coefficient	< 1% of Volume (cut surface)
Water Vapour Permeability	$\mu = 19$, $s_d = 1.1\text{m}$ ($d=59\text{mm}$, $\rho=14\text{kg/m}^3$)
Compressive Strength	0.09 N/mm ² approx. ¹ with 10% deformation (+23°C / 50% r.h.) (DIN 53 421)
Shear Strength	0.05 N/mm ² approx. ¹ (DIN 53 427)
Tensile Strength	0.11 N/mm ² approx. ¹ (DIN 53 430)
Elongation at Break	34 % approx. ¹ (DIN 53 430)
Dimensional stability	± 10% approx. ¹

System Information

Application Details

Consumption	Consumption can be regulated by the pressure and angle of the valve / adapter. <i>Yield:</i> 750 ml can up to 38 l (± 3 l)
Substrate Quality	Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles.
Substrate Preparation	Pre-dampen the substrate with clean water, this ensures that the foam cures optimally and also prevents secondary foam expansion later on.

Application Conditions / Limitations

Substrate Temperature	+5°C min. / +35°C max. (aerosol can has to be +5°C min.)
Ambient Temperature	Optimum handling temperature: +18°C to +25°C Permissible handling temperatures: +5°C min. / +35°C max.
Substrate Moisture Content	Has to be dry for visual control.
Relative Air Humidity	Between 30% and 100%

Application Instructions

Application Method / Tools	Shake the can thoroughly before use (~ 20 times). Screw the adapter firmly right down into place without pressing the valve. Holding the valve in any positions regulate foam flow with pressure on the valve / adapter. Fill deep cavities in several layers. Take care to allow each layer to cure and expand sufficiently by spraying with water between each layer or allowing sufficient waiting time between the layers. Do not fill up hollow sections completely from the nozzle as the foam expands by 1.5 to 2 times its volume during curing! All fixings and components etc must be temporarily supported until the foam has hardened.
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¹ 23°C / 50% r.h.

Cleaning of Tools	Remove fresh spots of foam immediately using a cleaner such as Sika Boom® Cleaner / Sika® Remover-208. Cured foam can only be removed mechanically.
Notes on Application / Limitations	<p>The aerosol can temperature has to be +5°C min. and +25°C max. For optimum flow and expansion the aerosol can temperature should be +20°C.</p> <p>Protect the can from direct sun and temperatures above +50°C (danger of explosion).</p> <p>For the correct curing of the foam sufficient moisture is necessary.</p> <p>Do not use on PE, PP, Teflon, Silicone, Oil, Grease and other separating agents.</p> <p>Foam is not resistant to UV light.</p> <p>Read the safety and technical recommendations printed on the aerosol-can.</p>
Value Base	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.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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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