BUILDING TRUST

PRODUCT DATA SHEET

Sika Boom®-558 Flex

Flexible gun applied polyurethane foam with low post expansion

PRODUCT DESCRIPTION

Sika Boom®-558 Flex is a flexible, 1-part, gun applied self-expanding polyurethane foam. It is ideal for filling connection joints around window and door frames, as it has low post expansion as well as a low curing pressure. Due to its flexibility, it can withstand large movements in joints.

USES

The Product is designed for:
- Applications in the building envelope, where a high degree of movement is expected
- Filling joints around window and door frames
- Filling joints and voids in and around any building components
- Any type of joint where a high degree of movement is expected

The Product can be used for interior and exterior applications.

CHARACTERISTICS / ADVANTAGES

- Flexible
- Good dimensional stability when cured (no shrinkage or post-expansion)
- Good thermal insulation
- Can be cut, trimmed, sanded and painted
- Chlorinated paraffin-free formulation
- Low curing pressure
- Low post-expansion
- Professional application with dispenser gun
- Effective sound dampening

ENVIRONMENTAL INFORMATION

- VOC emission classification GEV Emicode EC1^{plus}
- French regulation on indoor VOC emissions class A+
- VOC emission classification of building materials RTS M1
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)
- Conforms with DGNB version 2018 criteria ENV1.2 – Local environmental impact, quality level 1–2 (product group No. 38)

APPROVALS / STANDARDS

- Thermal conductivity EN 12667, Sika Boom® Control, ift Rosenheim, Test report No. 14-002025-PR04
- Reaction to Fire Classification DIN 4102-1, Sika Boom®-558 Flex, MPA Hannover, Report No. P-NDS04-1366
- Air permeability test DIN 18542, Sika Boom® Control, ift Rosenheim, Approval No. 14-002025-PR01
- Sound reduction test Sika Boom® Control, ift Rosenheim, Approval No. 14-002025-P
- Vapour permeability ISO 12572, Sika Boom® Control, ift Rosenheim, Approval No. 1

PRODUCT INFORMATION

Chemical Base	Polyurethane foam	
Packaging	12 canisters per box	750 ml, safety valve
	Refer to the current price list for available packaging variations.	
Colour	Light yellow, blue	

Shelf Life	15 months from date of production		
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Store in an upright position. Protect the canister from direct sunlight and temperatures above +50 °C (danger of exploding). Always refer to packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.		
Density	Cured product	~27 kg/m³	(FEICA TM 1019)

TECHNICAL INFORMATION

Compressive Strength	Dry	~1.5 N/cm²	(FEICA TM 1011)
	Wet	~1.0 N/cm²	
Tensile Strength	Dry	~6.5 N/cm²	(FEICA TM 1018)
	Wet	~6.5 N/cm²	
Elongation at break	Dry	~34 %	(FEICA TM 1018)
	Wet	~25 %	
Shear Strength	Wet	~3.5 N/cm²	(FEICA TM 1012)
Dimensional Stability	Dry	~ ± 3 %	(FEICA TM 1004)
	Wet	~ ± 3 %	
Expansion	~60 %		(FEICA TM 1010)
Curing pressure	~0.1 N/cm²		(FEICA TM 1009)
Reaction to Fire	Class B2		(DIN 4102-1)
UV Exposure	Not permanently UV stable		
Diffusion Resistance to Water Vapour	μ = 22		(DIN EN ISO 12572)
Equivalent Air Layer Thickness for Water Vapour	S_d = 0.4 m		(DIN EN ISO 12572)
Thermal Conductivity	λ_{10} = 0.035 W·m^{-1}·K^{-1}		(EN 12667)
Permeability to air	No measurable air flow		(DIN 18542)
Sound Insulation	Joint sound reduction, 10 mm joint width	≥ 63 dB	(ISO 10140-2)
	Joint sound reduction, 20 mm joint width	≥ 64 dB	

Service Temperature	Minimum	-40 °C
	Maximum	+80 °C (briefly up to +100 °C)

APPLICATION INFORMATION

Yield	Foam (box) yield, 750 ml canister	~38 L	(FEICA TM 1003)
	Joint yield, 750 ml canister	~29 m	(FEICA TM 1002)
	Joint yield based on 20 mm × 50 mm joint		

Product Temperature	Optimum	+20 °C
	Minimum	+5 °C
	Maximum	30 °C
Ambient Air Temperature	Optimum	+20 °C
	Minimum	-10 °C
	Maximum	+35 °C
Substrate Temperature	Optimum	+20 °C
	Minimum	-10 °C
	Maximum	+35 °C
Cutting Time	~55 minutes (time after which a 30 mm bead can be cut)	(FEICA TM 1005)
Tack Free Time	~8 minutes	(FEICA TM 1014)

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

REGULATION (EC) No 1907/2006 (REACH) - MANDATORY TRAINING

As from 24 August 2023 adequate training is required before industrial or professional use of this Product. For more information and a link to the training, visit www.sika.com/pu-training

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, sound, firm, free from oils, grease, dust and loose or friable particles. Paint, cement laitance and other poorly adhering contaminants must be removed. The Product adheres without primers and/or activators to most building materials such as wood, concrete, brick, metal or aluminium. For non-conventional substrates a preliminary adhesion test is recommended.

APPLICATION

IMPORTANT
The Product does not bond onto polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and silicone, oil, grease or release agents.
IMPORTANT
Do not use the Product for mechanical or structural fixing purposes.
IMPORTANT
When used for bonding vertical / horizontal building components, they must be supported until the Product has developed sufficient strength.
IMPORTANT
Moisture is necessary to cure the foam. Insufficient moisture may lead to subsequent unintended foam expansion (post-expansion).

1. IMPORTANT If ambient and/or substrate temperature is at or below 0 °C, start with the application immediately after pre-dampening (to prevent the water from freezing).Pre-dampen the substrate with clean water. This ensures that the foam cures properly and also prevents unwanted foam expansion.
2. Shake the canister well for a minimum 20 times before use. Note: Repeat shaking after long interruptions of use.
3. Remove the cap from the canister.
4. Screw the canister onto the thread of the application gun.
5. IMPORTANT To ensure proper flow, hold the canister upside down while dispensing.Dispense the foam by pressing the trigger.Note: The amount of foam extruded can be regulated by applying more or less pressure on the trigger or by using the application gun flow-adjustment-screw.
6. IMPORTANT Allow each layer to expand and harden sufficiently before pre-dampening with water again for next layer application.Fill deep joints in several layers.Note: Fill voids / cavities only partially as the foam expands during curing. Note: Small gaps can be filled using an extension tube, this will however reduce the foam flow rate.

IMPORTANT
Before removing the canister from the application gun, expend any material left in the canister into a container for safe disposal. Removing the canister

without emptying it first may lead to foam splashes.
IMPORTANT
Clean the application gun with Sika Boom® Cleaner directly after use. Removing the canister without thorough cleaning with Sika Boom® Cleaner may damage the application gun.

CLEANING OF TOOLS

1. Clean the application gun by screwing Sika Boom® Cleaner onto the thread of the application gun.
2. IMPORTANT Do not leave the Sika Boom® Cleaner screwed on the application gun, as the valve could be damaged.Press the trigger to clean it.

Clean any other tools or application equipment with Sika Boom® Cleaner or Sika® Remover-208 immediately after use. Hardened material can only be mechanically removed.

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.

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 IRELAND LIMITED
Ballymun Industrial Estate
Ballymun
Dublin 11, Ireland
Tel: +353 1 862 0709
Web: www.sika.ie
Twitter: @SikaIreland