

PRODUCT DATA SHEET

Sika Boom[®]-461 Top

Isocyanate free gun and nozzle applied STP foam



DESCRIPTION

Sika Boom[®]-461 Top is a white, 1-part, self-expanding foam based on silane terminated polymers (STP) which can be applied by nozzle or gun. It is isocyanate free and moisture curing.

USES

Sika Boom[®]-461 Top is designed for:

- Insulating against cold and draughts
- Filling joints around window and door frames
- Filling around pipes or conduit penetrations
- Insulating and filling cavities and voids

The Product can be used for interior and exterior applications.

FEATURES

- Flexible
- Good thermal insulation
- Can be cut, trimmed, sanded and painted
- Combi-valve for gun or nozzle application
- Low post-expansion
- Safety-valve for extended shelf life
- Isocyanate, chlorinated paraffin, halogen and plasticizer free formulation

SUSTAINABILITY

- VOC emission GEV-Emicode EC1PLUS
- EPD
- DGNB – New buildings and major renovations, version 2020-2.0.0 - The product complies with the requirements for indicator 38, quality level 3 according to the criteria matrix for ENV1.2/Environmentally hazardous substances.
- DGNB – New buildings and major renovations, version 2023 1.0.0 - The product complies with the requirements for indicator 38, quality level 4 according to the criteria matrix for ENV1.2/Environmentally hazardous substances.
- Meets DGNB - Renovation and New Construction 2025 2.0.1 indicator 38 with quality level 4 (+ extra points)
- The product is registered in the database for construction products that can be included in Nordic Ecolabelled buildings - indoors.
- Sika Boom[®]-461 Top is declared in the Nordic Ecolabelling Supply Chain Declaration Portal
- The product complies with the EU Taxonomy TSC, Annex C
- The product complies with the VOC EU Taxonomy DNSH 5.2

PRODUCT INFORMATION

Composition	Silane Terminated Polymer (STP) foam	
Packaging	Box content 12 canisters per box	Canister specification 500 ml, safety valve
Colour	white	
Shelf life	12 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.		
Density	Free foamed, gun applied, cured product	~30 kg/m ³	(FEICA TM 1019)
	Free foamed, nozzle applied, cured product	~36 kg/m ³	

TECHNICAL INFORMATION

Compressive strength	Dry, gun applied	~6.0 N/cm ²	(FEICA TM 1011)
	Dry, nozzle applied	~5.0 N/cm ²	
	Wet, gun applied	~6.5 N/cm ²	
	Wet, nozzle applied	~5.5 N/cm ²	
Tensile strength	Dry, gun applied	~8.0 N/cm ²	(FEICA TM 1018)
	Dry, nozzle applied	~12.0 N/cm ²	
	Wet, gun applied	~11.5 N/cm ²	
	Wet, nozzle applied	~12.0 N/cm ²	
Shear strength	Wet	~5.0 N/cm ²	(FEICA TM 1012)
Resistance to UV exposure	Not permanently UV stable		
Service temperature	Minimum	-40 °C	
	Maximum	+60 °C	
Post expansion	Gun applied	~160 %	(FEICA TM 1010)
	Nozzle applied	~240 %	
Curing pressure	~0.1 N/cm ²		(FEICA TM 1009)
Elongation at break	Dry, gun applied	~27 %	(FEICA TM 1018)
	Dry, nozzle applied	~9 %	
	Wet, gun applied	~56 %	
	Wet, nozzle applied	~11 %	

APPLICATION INFORMATION

Yield	Foam (box) yield, 500 ml canister, gun applied	~7.2 L	(FEICA TM 1003)
	Foam (box) yield, 500 ml canister, nozzle applied	~7.0 L	
	Joint yield, 500 ml canister, gun applied	~10.0 m	(FEICA TM 1002)
	Joint yield, 500 ml canister, nozzle applied	~9.5 m	
Joint yield based on 20 mm × 50 mm joint			
Material temperature	Optimum	+20 °C	
	Minimum	+10 °C	
	Maximum	+30 °C	
Ambient air temperature	Optimum	+20 °C	
	Minimum	+5 °C	
	Maximum	+35 °C	

Substrate temperature	Optimum	+20 °C
	Minimum	+5 °C
	Maximum	+35 °C
Cutting time	~100 min (time after which a 30 mm bead can be cut)	(FEICA TM 1005)
Tack free time	~8 min	(FEICA TM 1014)

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.

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.

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).

NOZZLE APPLICATION

IMPORTANT

Be careful when attaching or removing the nozzle. If pressure is applied to the valve, foam splashes may occur.

1. 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 and the application gun adapter ring from the canister.
4. Screw the nozzle firmly onto the thread of the valve without pressing the trigger or the valve.
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.

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.

GUN APPLICATION

1. 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 but leave the application gun adapter ring on 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-adjustmentscrew.

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

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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 EQUIPMENT

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

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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SikaBoom-461Top-en-DK-(04-2026)-8-3.pdf