BUILDING TRUST

PRODUCT DATA SHEET

Sika Boom®-461 Top

ISOCYANATE FREE GUN AND NOZZLE APPLIED STP FOAM

DESCRIPTION

Sika Boom®-461 Top is a flexible, 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. The cured foam can be cut, trimmed, sanded and painted. Internal and external use.

USES

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

CHARACTERISTICS / ADVANTAGES

- Isocyanate, chlorinated paraffin, halogen and plasticizer free formulation
- Combi canister packaging for gun or nozzle application
- Safety valve for extended shelf life
- 1-part ready to use
- Flexible with low curing pressure
- Good thermal insulation

SUSTAINABILITY

- VOC emission classification GEV-Emicode EC1^{PLUS}, license number 10809/03.06.13

PRODUCT INFORMATION

Composition	Silane Terminated Polymer (STP) foam		
Packaging	500 ml pressurised canister with safety valve: 12 canisters per box Refer to current price list for packaging variations.		
Colour	White		
Shelf life	12 months from the 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	Gun applied	~30 kg/m^3	(FEICA TM 1019)
	Nozzle applied	~36 kg/m^3	(FEICA TM 1019)

TECHNICAL INFORMATION

Compressive Strength	Gun applied	~1,9 N/cm^2	(FEICA TM 1011)
	Nozzle applied	~5,3 N/cm^2	

Tensile Strength	Gun applied	~11 N/cm²	(FEICA TM 1018)
	Nozzle applied	~8 N/cm²	(FEICA TM 1018)
Shear Strength	~5,0 N/cm²		(FEICA TM 1012)
Post Expansion	Gun applied	~200 %	(FEICA TM 1010)
	Nozzle applied	~90 %	(FEICA TM 1010)
Light and Thermal Resistance	Not permanently UV-stable		
Service Temperature	–40 °C min. / +80 °C max. (briefly up to +100 °C)		

APPLICATION INFORMATION

Yield	500 ml canister:			
	Box Yield	Gun applied	~7,21 l	(FEICA TM 1003)
		Nozzle applied	~7,01 l	
	Joint Yield*	Gun applied	~10,0 m	(FEICA TM 1002)
		Nozzle applied	~9,5 m	
	* Based on 20 × 50 mm joint.			
Product Temperature	The minimum canister temperature for application must be +10 °C. For optimal results, condition the canister to +20 °C.			
Ambient Air Temperature	Optimum		+20 °C	
	Permissible		+5 °C min. / +35 °C max.	
Substrate Temperature	Optimum		+20 °C	
	Permissible		+5 °C min. / +35 °C max.	
Curing Time	Fully cured after 24 hours			
Cutting Time	~100 min			(FEICA TM 1005)
Tack free time	~8 min			(FEICA TM 1014)

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. Sika Boom®-461 Top adheres without primers and/or activators.
Pre-dampen the substrate with clean water, this ensures that Sika Boom®-461 Top cures properly and also prevents secondary foam expansion.

MIXING

Shake the Sika Boom®-461 Top canister well for a minimum 20 times before use. Repeat shaking after long interruptions of use.

APPLICATION METHOD / TOOLS

Gun application
After shaking the canister, remove the cap from the Sika Boom®-461 Top canister as well as the lid of the ring on top. Screw Sika Boom®-461 Top onto the thread of the application gun. The amount of expanding foam extruded can be regulated by applying more or less pressure on the gun trigger or by using the application gun flow adjustment screw.
Fill deep joints in several layers. Allow each layer to expand and harden sufficiently before pre-dampening with water again for next layer application. Only partially fill voids / cavities as the foam expands during curing. Small gaps can be filled using an extension tube, this will however reduce the foam flow rate.
When used for bonding vertical / horizontal building components, they must be temporarily supported until the foam has fully cured.
Do not remove the canister from the application gun, unless it is completely empty. Premature removal could lead to foam splashes.
Clean application gun with Sika Boom® Cleaner after use. Removing the canister without thorough cleaning with Sika Boom® Cleaner will damage the application gun.

Nozzle application
After shaking the canister, remove the cap from the Sika Boom®-461 Top canister as well as the dispenser gun adapter ring. Screw the nozzle firmly onto the thread of the valve 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. Allow each layer to expand and harden sufficiently before pre-dampening

with water again for next layer application. Only partially fill voids / cavities as the foam expands during curing. Small gaps can be filled using an extension tube, this will however reduce the foam flow rate. When used for bonding vertical / horizontal building components, they must be temporarily supported until the foam has fully cured.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika Boom® Cleaner or Sika® Remover-208 immediately after use. Clean the application gun by screwing Sika Boom® Cleaner onto the thread of the application gun and clean according to instructions. Do not leave the Sika Boom® Cleaner screwed on the application gun, as the valve could become damaged.
Hardened material can only be mechanically removed. For cleaning skin use Sika® Cleaning Wipes-100.

IMPORTANT CONSIDERATIONS

- Moisture is necessary to cure the foam.
- Insufficient moisture may lead to subsequent unintended foam expansion (post-expansion).
- Do not use for mechanical or structural fixing purposes.
- Sika Boom®-461 Top does not bond onto polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and silicone, oil, grease or release agents.
- Sika Boom®-461 Top is not resistant to UV-light.
- Properties of fresh and cured foam differ from gun application to nozzle application.

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.