BUILDING TRUST

PRODUCT DATA SHEET

Sika Boom®-420 Fire

FIRE RESISTANT POLYURETHANE EXPANDING FOAM FOR GUN AND NOZZLE APPLICATION

DESCRIPTION

Sika Boom®-420 Fire is a 1-part, fire resistant, self-expanding polyurethane foam. It meets the fire resistance requirements of up to 180 minutes according to EN 1366-4. The combi-valve allows the application by either gun or nozzle.

USES

- Restores the fire resistance performance of a floor or wall which incorporates linear seals
- Interior use only

CHARACTERISTICS / ADVANTAGES

- Fire resistance up to 180 minutes according to EN 1366-4
- Combi-valve for gun or nozzle application
- 1-Part ready to use
- Safety valve for extended shelf life
- Cured foam can be cut, trimmed and sanded

SUSTAINABILITY

- VOC emission classification GEV-Emicode EC1^{PLUS}, license number 10376/03.06.13
- VOC emission classification of building materials RTS M1

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to ETA 19/0796, based on EAD 350140-00-1106:2017 – Fire stopping and fire sealing products, linear joint and gap seals

PRODUCT INFORMATION

Composition	Polyurethane foam		
Packaging	750 ml pressurised canister with safety valve: 12 canisters per box		
Colour	Red		
Shelf life	12 months from the date of production.		
Storage conditions	The product must be stored in original, unopened and undamaged 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	~17 kg/m³	(FEICA TM 1019)
	Nozzle applied	~30 kg/m³	

TECHNICAL INFORMATION

Post Expansion	Gun applied	~60 %	(FEICA TM 1010)
	Nozzle applied	~160 %	
Resistance to Fire	Refer to 'Approvals / Certificates' section, Sika Passive Fire Protection Handbook or contact Sika Technical Services for specific information		
Light and Thermal Resistance	Not permanently UV-stable		
Service Temperature	–40 °C min. / +80 °C max. (briefly up to +100 °C)		
Joint Design	Refer to 'Approvals / Certificates' section, Sika Passive Fire Protection Handbook or contact Sika Technical Services for specific information		

APPLICATION INFORMATION

Yield	750 ml canister:			
	Box Yield	Gun applied	~44 l	(FEICA TM 1003)
		Nozzle applied	~30 l	
	Joint Yield	Gun applied*	~32 m	(FEICA TM 1002)
		Nozzle applied*	~24 m	
	*Based on a 20 × 50 mm joint			
Product Temperature	Optimum		+20 °C	
	Permissible		+5 °C min. / +30 °C max.	
Ambient Air Temperature	Optimum		+20 °C	
	Permissible		+5 °C min. / +30 °C max.	
Substrate Temperature	Optimum		+20 °C	
	Permissible		+5 °C min. / +30 °C max.	
Cutting Time	Gun applied:		~25 minutes*	(FEICA TM 1005)
	Nozzle applied:		~40 minutes*	
	*After this time a 30 mm diameter bead can be cut			
Tack free time	~6 minutes			(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.
Pre-dampen the substrate with clean water, this ensures that Sika Boom®-420 Fire cures properly and also prevents secondary foam expansion.

APPLICATION METHOD / TOOLS

Some application guns may not be compatible with the valve (danger of leaking). To ensure correct operation, use a Sika approved application gun. For further information on Sika approved application guns, contact Sika Technical Services.
Shake the Sika Boom®-420 Fire canister well for a minimum 20 times before use. Repeat shaking after long interruptions of use.

Gun application
After shaking the canister, remove the cap from the Sika Boom®-420 Fire canister as well as the lid of the ring on top. Screw Sika Boom®-420 Fire onto the thread of the application gun. The amount of foam extruded can be regulated by applying more or less pressure on the gun trigger or by using the application gun flow adjustment screw.
Dispense the foam while holding the can upside down. 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.
Do not remove the canister from the application gun, unless it is completely empty. Premature removal could lead to foam splashes. Clean the application gun with Sika Boom® Cleaner after use. Removing the canister without thorough cleaning with Sika Boom® Cleaner may damage the application gun.

Nozzle application

After shaking the canister, remove the cap from the Sika Boom®-420 Fire canister and screw the nozzle firmly onto the thread of the valve without pressing the trigger or the valve. The amount of foam extruded can be regulated by applying more or less pressure on the trigger.
Dispense the foam while holding the can upside down. 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.

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 press the trigger to clean it. Do not leave the Sika Boom® Cleaner screwed on the application gun, as the valve could be damaged. Hardened material can only be mechanically removed.

FURTHER INFORMATION

- Sika Method Statement: Sika Boom®-420 Fire
- Sika Passive Fire Protection Handbook

IMPORTANT CONSIDERATIONS

- Limitations regarding dimensions and configurations described in the relevant fire resistance classification reports must be considered.
- 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®-420 Fire adheres without primers and/or activators to building materials in combination with which fire tests have been carried out.
- Sika Boom®-420 Fire does not bond onto polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and silicone, oil, grease or release agents.
- The properties of the cured foam will be different between the gun and nozzle application.

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.

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.

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

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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