BUILDING TRUST

PRODUCT DATA SHEET

Sika Boom®-405 Water Stop

Fast curing 2-part self-expanding polyurethane foam for watertight seals

DESCRIPTION

Sika Boom®-405 Water Stop is a 2-part, fast curing, self-expanding polyurethane sealing foam that doesn't need ambient moisture to cure. Its high density and very fine, predominantly closed cell structure lead to a watertight seal in wall openings for pipes, ducts or pipe connections. The special packaging allows the application to be interrupted and then resumed by replacing the nozzle.

USES

The Product is designed for sealing of:
- Wall openings for pipes or ducts
- Cable ducts
- Pipe connections (e.g. in manholes)
- Prefabricated concrete elements
- Pipe plug seals for diameters up to 200 mm

The Product can be used for interior and exterior applications, above and below ground.

FEATURES

- Tested for up to 1 bar water pressure
- Multiple partial discharges possible
- 2-Part ready to apply (no pre-activation needed)
- Very fast curing
- Good dimensional stability when cured (no shrinkage or post-expansion)
- Good thermal insulation
- Can be cut, trimmed, sanded and painted

SUSTAINABILITY

- VOC emission classification GEV-Emicode EC1PLUS
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

CERTIFICATES AND TEST REPORTS

- Reaction to Fire Classification DIN 4102-1, Sika Boom®-405 Water Stop, MPA Hannover, Report No. P-NDS04-1365
- Sealing test ÖNORM B 5013-3, Sika Boom®-405 Water Stop, Ofi, Report No. 17.00805-7u
- Sealing test, Sika Boom®-405 Water Stop, Ofi, Report No. 17.00805-1u
- Thermal conductivity, water vapour diffusion, water absorption, Sika Boom®-405 Water Stop, Ofi, Report No. 1700805-2

PRODUCT INFORMATION

Composition	2-part polyurethane foam		
Packaging	**Box content**	**Canister specification**	
	15 canister per box	400 ml, canister with lever and 2 nozzles each	
	Refer to current price list for packaging variations.		
Colour	Green		
Shelf life	9 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	~39 kg/m³	(FEICA TM 1019)

TECHNICAL INFORMATION

Compressive strength	Dry	~9.0 N/cm²	(FEICA TM 1011)
Tensile strength	Dry	~17.5 N/cm²	(FEICA TM 1018)
Shear strength	Dry	~8.5 N/cm²	(FEICA TM 1012)
Reaction to fire	Class B2		(DIN 4102-1)
Resistance to UV exposure	Not permanently UV stable		
Diffusion resistance to water vapour	$\mu = 37$		(EN 12086)
Equivalent air layer thickness for water vapour	$S_d = 1.8$ m		(EN 12086)
Thermal conductivity	$\lambda_{10} = 0.0221$ W·m^{-1}·K^{-1}		(EN 12667)
Service temperature	Minimum	-40 °C	
	Maximum	+80 °C (briefly up to +100 °C)	
Post expansion	~180 %		(FEICA TM 1010)
Elongation at break	Dry	~10 %	(FEICA TM 1018)

APPLICATION INFORMATION

Yield	Foam (box) yield, 400 ml canister	~8 L	(FEICA TM 1003)
	Joint yield, 400 ml canister	~9 m	(FEICA TM 1002)
	Joint yield based on 20 mm × 50 mm joint		
Material temperature	Optimum	+20 °C	
	Minimum	+10 °C	
	Maximum	+25 °C	

Ambient air temperature	Optimum	+20 °C
	Minimum	+10 °C
	Maximum	+30 °C
Substrate temperature	Optimum	+20 °C
	Minimum	+10 °C
	Maximum	+30 °C
Curing time	~3 hours	
Cutting time	~4 min (time after which a 30 mm bead can be cut)	(FEICA TM 1005)
Tack free time	~2 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.

IMPORTANT CONSIDERATIONS

- Do not use the product for drinking water application
- Do not use the product for sealing areas where running water is present
- Do not use the product for mechanical or structural fixing purposes
- Do not use the product for vibrating components

ECOLOGY, HEALTH AND SAFETY

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

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.

IMPORTANT

Excess moisture

Do not pre-dampen the substrate and remove excess moisture. Excess moisture on the substrate may lead to adhesion problems and to shrinkage once the foam is cured.

IMPORTANT

Roughening and priming

When used for substrates such as polyethylene (PE), polypropylene (PP) or polyvinyl chloride (PVC) the substrate must be roughened with an abrasive paper and pre-treated using a suitable primer or activator such as Sika® Aktivator-205.

IMPORTANT

Securing moving components

Firmly secure all moving components, which are meant to be sealed against possible movement, until the product has fully cured.

MIXING

Neither manual pre-activation nor mixing is required. The mixing process of the two parts contained in the canister takes place automatically in the nozzle.

CLEANING OF EQUIPMENT

Clean all tools and 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 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.

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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