



KITTEN

**BELNED** GLASS & GLAZING  
PRODUCTS

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## TECHNICAL DATA PU-FOAM FIRE PROTECT (hand and gun)

### PRODUCT DESCRIPTION

PU Foam Fire Protect (hand/gun) is a flame-retardant polyurethane foam, tested in vertically and horizontally orientated linear gaps according to **EN 1366-4** and classified according to **EN 13501-2** with a fire resistance up to **240 minutes**. This product also meets the requirements of building material class **B1** according to the German **DIN 4102 part 1**. It has also been tested and classified according to test regulations and fire protection guidelines of VKF (Swiss Association of Cantonal Fire Insurances) with the **fire index 5.1**. This product has been manufactured under the controls established by an audited quality management system that conforms to ISO 9001:2015.

### PRODUCT BENEFITS

- preventive fire protection
- fire retardant filling, sealing and insulating
- can be used either with the **foam gun (G)** or **adapter (A)**
- tested and classified fire resistance up to 240 min in accordance to EN 1366-4 / EN 13501-2:EI 240 – V – X – F – W 0-10
- Building Material Class B1 according to DIN 4102-1
- VKF (Swiss Association of Cantonal Fire Insurances): Fire Index 5.1
- very low emission (GEV EMICODE EC1 Plus)
- German Sustainable Building Council (DGNB): Quality level 2

### AREAS OF APPLICATION

- Insulating and fire-retardant sealing of connection joints in fire protection windows and fire dampers.
- Insulating and fire-retardant sealing of connection joints in fire protection doors and gates.

### PRODUCT FEATURES

PU Foam Fire Protect (hand/gun) adheres to all common building materials except polyethylene, silicone, oils and greases, mould release agents or similar substances. The foam can be used at surface and ambient temperatures of +5°C to +35°C. Cured foam is predominantly closed-celled, rot-proof, moisture- and temperature-resistant from -40°C to +80°C. It is aging resistant, however not against UV radiation.

### WORK PREPARATION

Surfaces must be firm, clean, dust and grease free. Remove loose particles and **dampen the immediate area with water before proceeding**. Have the **PU-cleaner** ready for cleaning and removal of fresh foam. The ideal working temperature is +20°C. Cans that are too cold can be carefully heated in lukewarm water. **Attention: never heat above +50°C, as the can may burst. Cans that are too hot, such as those left in a car during summer, can be cooled in cold water, but do not shake!**

**Using the adapter:** when using the adapter loosen the gun ring by turning counterclockwise. Screw the adapter with extension hose firmly onto the valve until it stops. **Shake the can well before use (about 30x)**. The foam discharge level can be regulated by varying the pressure on the adapter. After application, slide the adapter tube into the holder and place it over the lip seal. Be sure to secure firmly. This will allow work interruptions of several weeks. To reuse, remove the adapter hose from the holder.

**Using the foam gun:** follow the gun operating instructions. Before connecting with the foam gun, **shake the can about 30x**. Placing the can on a surface, attach the gun by screwing it onto the threaded collar of the can. Do not tilt or overtorque the threaded collar. Repeat the shaking after longer interruption.

### APPLICATION

Fill voids modestly, as fresh foam can expand by about 80% (A) or 50% (G). Foam is dispensed by squeezing the trigger. **Apply moisture evenly to the discharged foam. For larger gaps and cavities moistening is recommended after each foam layer.** Applying insufficient moisture and/or cavity overfilling may lead to subsequent unintended foam expansion. After the application is finished, any foam left on the foam gun should be cleaned immediately with PU-Cleaner. Cured foam can only be removed by mechanical means



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## SHELF LIFE & STORAGE

Safety Valve System (VKS02): 15 months.

The ideal storage temperature is between +10 and +20°C. Considerably higher temperatures may reduce the shelf-life. Cans must be stored **upright** and protected from humidity, frost and heat.

Empty cans should be disposed of in accordance with national regulations.

## SAFETY INSTRUCTIONS

Safety Data Sheet is available.

## TECHNICAL DATA

Measured at + 23°C, 50% relative humidity, according to FEICA test methods & EN 17333.

Application temperatures (surfaces and ambient)	minimum	+ 5°C	Post expansion (35-mm-joint width) (FEICA TM 1010)	dry	A: ~ 80% G: ~ 50%
	optimal	+ 20°C			
	maximum	+ 35°C			
Application temperatures of can	minimum	+ 5°C	Tensile strength (FEICA TM 1018)	dry	A:~165 /G: ~80 kPa
	maximum	+ 30°C		moist	A:~95 /G: ~110 kPa
Foam colour	pink		Elongation at break (FEICA TM 1018)	dry	A/G: ~ 12%
Cell structure	A: medium / G: fine			moist	A:~ 11% / G:~ 12%
Free foamed density (FEICA TM 1019)	dry	A: ~ 34 kg/m3 G: ~ 23 kg/m3	Shear strength (FEICA TM1012)	moist	A/G: ~ 60 kPa
Tack free time (FEICA TM 1014)	dry	A/G: ~8 min		Compression strength (at 10% compression) (FEICA TM 1011)	dry
Cutting time (FEICA TM 1005)	dry	A: ~ 110 /G: ~ 60 min	Temperature resistance of a cured foam		moist
Fully loadable (30 mm bead)	~ 12 hours			GEV EMICODE	- 40°C to +80°C (short term up to +100°C)
Sagging behaviour and max. joint width (FEICA TM 1006)	dry (+5°C)	A: Level 1/60mm G: Level 1/60mm	German Sustainable Building Council (DGNB)		EC1 PLUS very low emission
Joint yield (FEICA TM 1002; dry application)	750 ml	A: up to 18m G: up to 36m		French VOC-Emission Class	Quality Level 2
Foam yield (box-test) (FEICA TM 1003 / moist application)	750 ml	A: up to 33 litres G: up to 43 litres	Classified Fire Resistance acc. to EN 1366-4 / EN 13501-2		A+
Brittleness (FEICA TM 1008 / dry application)	+5°C / 1.5h / 24h	A/G: 2 / 1		Building Material Class according to DIN 4102-1	up to 240 min (EI 240-V-X-F-W 0-10)
Dimensional stability (FEICA TM 1004)	dry	A:± 5% / G:± 3%	Fire Index according to the Swiss Association of Cantonal Fire Insurances		B1
	moist	A:± 5% / G:± 3%		5.1	
Curing pressure (during curing process) (FEICA TM 1009)	after 3h	A: ~ 10 kPa			
	after ½h	G: ~ 1 kPa			

**A = Adapter application**

**G = Gun application**

The information in this data sheet represents laboratory values that may vary based on actual application, and thus represent no guarantee of a given attribute. The variety of specific applications and possible combinations cannot be covered in this description. The user is responsible to gather information accordingly. Specific results cannot be guaranteed due to lack of oversight of application requirements. Tests performed by the individual user are expressly advised in order to achieve the desired results