

BELNED GLASS & GLAZING PRODUCTS



Ramgatseweg 6, 4941 VS Raamsdonksveer T+31 (0)162 576 576 • verkoop@belned.nl



Industriezone Centrum Zuid 3041, B-3530 Houthalen T +32 (0)11 525 880 ● sales@belned.be

WWW.BELNED.NL

TECHNICAL DATA PU-GUNFOAM FLEX

PRODUCT DESCRIPTION

PU Gunfoam Flex is a specialized flexible soft cell foam which can withstand long term greater structural movement, e.g. fluctuation in temperature, due to its flexible nature. The high adhesive strength prevents tearing along the edges, thereby ensuring that the high noise and thermal insulation between components (e.g. window seams) last for long periods of time. The specialized formulation allows for product use down to temperatures of -10° C.

This product has been manufactured under the controls established by an audited quality management system that conforms to ISO 9001:2015.

PRODUCT BENEFITS

- withstands structural movement long-term
- excellent results at low temperatures up to -10°C
- excellent dimensional stability (±3%)
- Thermal Conductivity: $\lambda_{10} = 0.035 \text{ W/(m} \cdot \text{K)}$
- Joint Sound Reduction R_{S.w}:
 - √ 10 mm joint width: ≥ 63 dB
 - ✓ 20 mm joint width: ≥ 64 dB
- Air Permeability: no measurable air flow
- Water Vapour Resistance Factor: μ = 22
- very low emission (GEV EMICODE EC1 Plus)
- German Sustainable Building Council (DGNB): Quality level 2
- Building material class E according to EN 13501-1
- Building material class B2 according to DIN 4102-1

AREAS OF APPLICATION

- Window mounting (for clean and controlled backfill as well as insulating and sealing window seams and rolling shutter housings)
- Filling and insulation of joints and cavities in roof extensions and roof insulation
- Filling smaller wall recesses, conduit penetrations of any kind and other cavities.

PRODUCT FEATURES

PU Gunfoam Flex 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 –10°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. Heat and noise reduction are excellent. This foam is not suitable for assembly purposes.

WORK PREPARATION

Surface must be firm, clean, dust and grease free. Remove loose particles and dampen the immediate area with water before proceeding. As an option, using a primer will increase stability. Have all components ready for attachment. 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! 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 adapter. Repeat the shaking after longer interruptions.

APPLICATION

Fill voids modestly, as fresh foam can expand by about 50%. 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. **If the can isn't empty, leave the foam gun connected until the next application!** An opened can should be used within 4 weeks.



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Once the can is completely empty, remove the gun carefully and clean the outside with PU-Cleaner immediately. Then connect a can of PU-Cleaner to the gun and press the trigger several times to rinse the gun's inner parts with pointing the nozzle into an appropriate receiving container. **Caution: The cleaner is dispensed under high pressure!**

SHELF LIFE & STORAGE

Standard Valve System (VPG01): 12 months / Safety Valve System (VKS01 / 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	-10°C	Post expansion (35-mm-joint width) (FEICA TM 1010)	dry ~ 50 %	~ 50 %
	optimal	+ 20°C			1 30 70
	maximum	+ 35°C	Tensile strength (FEICA TM 1018)	dry	~ 65 kPa
Application temperatures of can	minimum	+ 5°C		moist	~ 55 kPa
	maximum	+ 30°C	Elongation at break (FEICA TM	dry	~ 35 %
Foam colour	yellow		1018)	moist	~ 20 %
Cell structure	medium to fine		Shear strength (FEICA TM1012)	moist	~ 30 kPa
Free foamed density (FEICA TM 1019)	dry	~ 25 kg/m3	Compression strength (at 10%	dry	~ 15 kPa
Tack free time (FEICA TM 1014)	dry	~ 8 min	compression) (FEICA TM 1011)	moist	~ 10 kPa
Cutting time (FEICA TM 1005)	dry	~ 60 min	Movement capability / elasticity (FEICA TM 1013; moist)	velocity ≤ 7 mm/min movement ± 17.5%	
Fully loadable (30 mm bead)	~ 12 hours		Temperature resistance of a cured foam	- 40°C to +80°C (short term up to +100°C)	
Sagging behaviour and max. joint width (FEICA TM 1006)	dry / (- 10°C)	Level 1 up to 75 mm	GEV EMICODE	EC1 PLUS very low emission	
Joint yield (FEICA TM 1002; dry application)	750 ml	up to 25 m	German Sustainable Building Council (DGNB)	Quality Level 2	
Foam yield (box-test) (FEICA TM 1003 / moist application)	750 ml	up to 38 litres	French VOC-Emission Class	A+	
Brittleness (FEICA TM 1008 / dry application)	-10°C / 1.5h / 24h	1/1	Construction Material Class according to EN 13501-1	E	
Dimensional stability (FEICA TM 1004)	dry	± 3 %	Construction Material Class according to DIN 4102 Part 1	B2	
	moist	± 3 %	Joint Sound Reduction	joint width 10 mm: ≥ 63 dB joint width 20 mm: ≥ 64 dB	
Curing pressure (during curing process) (FEICATM 1009)	after 0.7 h	~ 1.3 kPa	Air Permeability	no measurable air flow	
Thermal Conductivity	λ10 = 0.035 W/(m•K)		Water Vapour Resistance Factor / Diffusion equivalent air layer thickness	μ = 22 sd = 0.4 m	

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