PENOSIL
We save energy / Wolf Group

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TECHNICAL DATA SHEET

PENOSIL Fire Rated Gunfoam B1 187

One-component, ready to use polyurethane gunfoam for installation of fire-proof doors and windows, sealing of joints in fire rated walls and other sealing works in places which have heightened requirements concerning building materials reaction to fire properties. Adheres well to most materials like wood, concrete, stone, plaster, metal, PVC and polystyrene.

- Fire rated up to 240 minutes
- Fire class B1 (DIN) and B-s2,d0 (EN)
- Low expansion avoids deformation of building elements
- High mechanical strength
- No shrinkage
- High thermal and acoustic insulation value

Fields of application

- Installation of fire-proof doors and windows
- Sealing of joints in fire rated walls
- Sealing works in places which have heightened requirements concerning building materials reaction to fire properties

Application instructions

Application conditions
Air temperature during use: +5 °C to +30 °C. Make sure the ambient temperature stays within this range until the foam has fully cured.
Can temperature during application: +10 °C to +25 °C, best results at +20 °C.

Surface preparation
Remove dust, loose particles and oil stains from the surfaces. Moisten dry substrate with water mist to ensure better results. Protect adjacent surfaces with paper, plastic film or other suitable material. If needed add additional shield outside for weather protection (against rain, wind, etc.).

Application method
Shake the can vigorously at least 20 times. Remove the cap. Hold the foam can in upright position with valve up. Screw the can tightly to the gun by holding the gun handle with one hand and turning the can with the other hand. Do not aim the gun at people. Avoid screwing the can to the gun with valve upside down. Do not screw the gun to the can. Do not bend or turn the can during screwing. Hold the can upside down when extruding the foam. Foam output can be adjusted with gun trigger and adjustment screw.
Fill joints up to approx. 75%, as the foam expands. In case of larger joints apply foam in several layers and moisten slightly between each layer to ensure better results.
Excess foam can be cut after it has fully cured.

Cleaning
Use Penosil Foam Cleaner to clean tools and surfaces from uncured foam. Hands, clothes and foam gun can also be cleaned from uncured foam with Penosil Cleaning Wipes. Remove cured foam mechanically after softening with Penosil Foam Remover.

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Technical data

Properties	Value	Unit
Tack free time (EN 17333-3)	6…10	min
Cutting time (30 mm bead, EN 17333-3)	<30	min
Fully cured in joint, 3x5cm (+23 °C)	<8	h
Curing pressure (EN 17333-2, moistened surfaces)	<3	kPa
Post expansion (EN 17333-2)	<50	%
Density in joint, 3x10cm (WGM106)	17…22	kg/m^3
Dimensional stability (EN 17333-2, moistened surfaces)	<1	%
Temperature resistance of cured product	-50…+90	°C
Fire resistance class (EN 13501-2)	Up to EI240	
Reaction to fire classification (EN 13501-1)	B-s2,d0	
Fire class of cured foam (DIN 4102-1)	B1	
Tensile strength / elongation (EN 17333-4, moistened surfaces)	>95 / 14	kPa / %
Compression strength (EN 17333-4, moistened surfaces)	>40	kPa
Shear strength (EN 17333-4, moistened surfaces)	>45	kPa
Thermal conductivity (EN 12667, EN 17333-5)	0,03	W/(m·K)
Sound reduction index $R_{st,w}$ (EN ISO 10140)	62	dB
Water vapour permeability (EN 12086)	<0,06	mg/(m·h·Pa)

The values specified were obtained at +23 °C and 50% relative humidity, unless otherwise specified. These values may vary depending on environmental factors such as temperature, moisture and type of substrates.

Wolf Group OÜ uses test methods approved by FEICA designed to deliver transparent and reproducible test results, ensuring customers have an accurate representation of product performance. FEICA OCF test methods are available at: http://www.feica.eu/our-industry/pu-foam-ocf.aspx. FEICA is a multinational association representing the European adhesive and sealant industry, including one-component foam manufacturers. Further information at: www.feica.eu.

Fire resistance tested according to EN 1366-4 and rated according to EN 13501-2:

Fire Resistance Classification	EI 30-V-X-F-W-00 to 40	Joint depth 100mm and over
	EI 45-V-X-F-W-00 to 20	Joint depth 100mm and over
	EI 60-V-X-F-W-00 to 10	Joint depth 100mm and over
	EI 90-V-X-F-W-00 to 60	Joint depth 200mm and over
	EI 120-V-X-F-W-00 to 30	Joint depth 200mm and over
	EI 180-V-X-F-W-00 to 20	Joint depth 200mm and over
	EI 240-V-X-F-W-00 to 10	Joint depth 200mm and over

This classification is valid for the following end use applications:
1) The foam shall be used as fire resistant joint seal in joints of concrete, block work and masonry vertical separating elements with density of 650kg/m^3 or greater and thickness of 100mm and over.
2) Linear joints shall have vertical orientation only and shall be filled throughout. Joint seal shall be fitted flush with the surface of the supporting construction and protected with steel sheet, thickness at least 0,5 mm.

Technical classification and certificates

- EMICODE® EC1 Plus - very low emission
- M1 - low emission & odour

Colour

Pink.

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Package

1000 ml aerosol can, content 750 ml, 12 pcs in a box.

Storage conditions and shelf life

Guaranteed shelf life is 12 months from production date if stored in an unopened packaging in a cool and dry place at +5 °C to +30 °C. Do not expose to temperature over +50°C, do not keep near heat sources or in direct sunlight. Store and transport in upright position. Secure cans before transport.

Limitations

- PU foam lacks adhesion to Teflon, polyethylene and silicone surfaces.
- Cured foam is sensitive to UV-light and direct sunlight and therefore must be covered with suitable opaque sealant, filler, paint or other material. Do not cover before foam has fully cured.
- Please observe the expiration date!

Safety regulations

Pressurized canister. Use only in well-ventilated areas. Do not smoke during application! Use protective gear when necessary. Keep out of the reach of children.
See label and safety data sheet (SDS) for more information.

Note: The instructions in the present documentation are based on tests carried out by the manufacturer and are presented in good faith. Due to variations in materials and substrates as well as the various application possibilities that are beyond our control, the manufacturer is not liable for the results achieved. In any case, it is recommended to test the product suitability at the place of application. Manufacturer reserves the right to modify products without prior notice.
This TDS replaces and supersedes all previous data sheets on the same product.