

27 June 2024

FLEXIBLE INSULATION EXPANDING FOAM **GENIUS GUN**

Technical Data

Basis	Polyurethane
Consistency	Stable foam, thixotropic
Curing system	Moisture curing
Skin formation* (EN 17333-3)	7 min
Cutting time (EN 17333-3)	55 min
Free foamed density (EN 17333-1)	Ca. 25 kg/m ³
Air permeability (DIN 18542)	$\alpha < 0.1 \text{ m}^3/[\text{h.m.}(\text{daPa})^{2/3}]$
Water vapor permeability (DIN EN ISO 12572)	$\mu = 20$
Sound insulation (EN ISO 717-1)	60 dB
Thermal conductivity (λ) (EN 12667)	0.0345 W/m.K
Box Yield (EN 17333-1)	750 ml yields ca. 29 l of foam
Joint Yield (EN 17333-1)	750 ml yields ca. 22 m of foam
Shrinkage after curing (EN 17333-2)	< 5 %
Expansion after curing (EN 17333-2)	< 5 %
Cellular structure	Fine-celled
Fire rating (DIN 4102)	B2
Permanent deformation under pressure (ISO 1856) 50% compression 22h after 1 day recovery	Ca. 6%
Compressive strength (EN 17333-4)	Ca. 15 kPa
Shear strength (EN 17333-4)	Ca. 25 kPa
Tensile strength (DIN 53423)	Ca. 50 kPa
Elongation at break (ISO 37)**	30%
Water absorption (EN 29767)	1 % volume
Temperature resistance**	-40 °C → +90 °C, +120 °C (max 1 hr)
Application temperature	
Can temperature	5 °C → 30 °C
Ambient temperature	5 °C → 30 °C
Surface temperature	5 °C → 35 °C

* These values may vary depending on environmental factors such as temperature, moisture, and type of substrates.

** This information relates to fully cured product

Product description

Flexible Insulation Expanding Foam Genius Gun is a one-component, self-expanding, ready to use polyurethane foam with elastic properties, which allow the foam to follow the movement of the joint and keep its insulation properties for many years. It has been fitted with the unique patented Genius Gun - adaptor system for maximum comfort during application.

Properties

- 3 times more flexible than standard PU foam
- Airtight (see IFT-report)
- Water Vapour Open
- Excellent stability (no shrinkage or post-expansion)

- High filling capacity
- Good adhesion on all surfaces (except PE, PP and PTFE).
- High insulation value, thermal and acoustic
- Very good bonding properties.
- Very precise to dose.
- Low expansion
- Elastic and compressible.
- Freon free (not harmless to ozone layer and greenhouse effect)
- Fast curing
- Not UV-resistant
- Re-usable up to 4 weeks

Remark: This technical data sheet replaces all previous versions. The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. Since the design, the quality of the substrate and processing conditions are beyond our control, no liability under this publication is accepted. In every case, it is recommended to carry out preliminary experiments. Soudal reserves the right to modify products without prior notice.

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Applications

- All foam applications in static and not static joints.
- Installing of window and door frames
- Filling of cavities.
- Apply of a sound absorbing layer.
- Improving thermal isolation in cooling systems.

Packaging

Colour: blue

Packaging: 750 ml aerosol (net)

Shelf life

At least 18 months in original, unopened packaging in a cool and dry storage place with temperature between +5°C and +25°C. Upright storage is recommended.

Substrates

Nature: clean, free of dust and grease, dry

Surface preparation: For optimal adhesion, we recommend to follow a pretreatment procedure.

Moisten surfaces with a water sprayer prior to application

We recommend a preliminary adhesion and compatibility test on every surface.

Application method

Refer to the current Technical Data Sheet on our website prior to use.

Shake the aerosol can for at least 20 seconds. Open the cover and fold the tube horizontally. Moisten surfaces with a water sprayer prior to application. For non-conventional substrates a preliminary adhesion test is recommended.

Fill holes and cavities for 1/3, as the foam will expand. Repeat shaking regularly during application. If you have to work in layers repeat moistening after each layer. For storage: detach the bung, close nozzle with bung, close the cap and store can upright.

Cleaning: Clean with Soudal Gun & Foam cleaner or acetone immediately after use. Cured Flexible Insulation Expanding Foam Genius Gun can be removed mechanically or with PU Foam Remover. Prior to using the Gun & Foam cleaner, test whether

surfaces are affected or not. Especially plastics and lacquer or paint layers can be sensitive to this.

Repair: With the same material.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Always wear gloves and goggles. Remove cured foam mechanically. Never burn away.

Consult label and safety data sheet (SDS) for more information. When vaporizing (for example with a compressor), additional security measures will be required. Use only in well-ventilated areas.

Remarks

- Moisten surfaces with a water sprayer prior to application.
- If you have to work in layers repeat moistening after each layer. For not common surfaces we recommend an adhesion test.

Standards and certifications

- Baustoffklasse E (DIN EN 13501-1) - Prüfzeugnis P-SAC 02/III-164 (MFPA Leipzig)
- Acoustical insulation (EN ISO 717-1) – PB Z0910-K05-04 (IFT Rosenheim)
- Thermal conductivity (DIN 52612) – PB 070598.1 Hu (MPA Bau Hannover)
- Air permeability (DIN 18452) – PB 105334285 (IFT Rosenheim)
- Water vapor permeability (DIN EN ISO 12572) - PB 50933428 (IFT Rosenheim)

Environmental clauses

Leed regulation:

Flexible Insulation Expanding Foam Genius Gun conforms to the requirements of LEED. Low –Emitting Materials: Adhesives and Sealants. SCAQMD rule 1168. Complies with USGBC LEED 2009 Credit 4.1: Low-Emitting Materials – Adhesives & Sealants concerning the VOC-content.

Liability

The content of this technical data sheet is the result of tests, monitoring and experience. It is general in nature and does not constitute any liability. It is the

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responsibility of the user to determine by his own tests whether the product is suitable for the application.

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