

BREEZE BLOCK PU FOAM

Air Tight Expanding PU Foam

Technical Data Sheet



PU FOAM & ADHESIVE RANGE

CLASS
EN 12114:2000
DIN 4102-1 B2

Description:

A fast setting, multi-purpose gun grade polyurethane foam ideal for use as an air tight gap-filler for general construction joints where movement is likely. Absorbs component movement thereby giving an air-tight seal to reduce heat loss and improve energy efficiency in buildings. Bonds, fills, seals and insulates most construction materials.

Features & Benefits:

- ◆ Near-zero curing pressure and low post expansion avoids deformation of building elements.
- ◆ High thermal insulation value.
- ◆ Gives an airtight seal: $<0.1\text{m}^3 / [h.m(\text{daPa})^{2/3}]$ according to EN 12114:2000.
- ◆ B2 Rating according to DIN 4102-1.
- ◆ Sub-zero formula - can be used at temperatures as low as -5°C .
- ◆ Non-shrinking.
- ◆ Acoustic dampening - up to 63dB.

Use

Bond It BREEZE BLOCK AIR TIGHT PU FOAM is a one-component polyurethane assembly foam, and is based on a moisture curing polyurethane prepolymer. The fresh foam adheres to most common building materials including wood, concrete, block, stone, plaster, metal, PVC and polystyrene.

Foam does not shrink after curing keeping the risk of deformation of joints and separation from the surface minimal.

Areas of Application:

- ◆ Suitable for applications such as airtight window and door perimeter joint seals, sealing floor to wall and wall to ceiling joints and pipe & service penetrations.
- ◆ Filling of holes.
- ◆ Insulation of penetrations.
- ◆ Sealing of thermal and acoustic insulation boards.
- ◆ Sealing and connection of joints.
- ◆ Reducing the impact of thermal bridges.

Properties

The recommended temperature for the can and environment is $+5^{\circ}\text{C}$ to $+25^{\circ}\text{C}$, with the best result at $+20^{\circ}\text{C}$.

The can temperature during application should be $+5^{\circ}\text{C}$ to $+25^{\circ}\text{C}$ with the best results at $+20^{\circ}\text{C}$. Chilled cans must be carefully warmed in lukewarm water ($+30^{\circ}\text{C}$) before usage but avoid heating above $+50^{\circ}\text{C}$, as there is a risk of bursting. Cans which are too hot, for example after having been left in a vehicle during summer, must be cooled using cold water.

Preparation

Surfaces to be bonded must be firm, clean, dry and free from dust, grease or contaminants that may hinder adhesion. They must be moistened well with water. All construction components must be properly prepared prior to foam application. It is advisable to have FOAM CLEANER at hand.

Protect adjacent surfaces with paper, plastic film or other suitable material. The can should be shaken occasionally during this process to obtain the required temperature faster.

Prior to work, and before the adaptor is attached, the can must be shaken thoroughly at least 20 times.

Application

As from 24 August 2023 adequate training is required before industrial or professional use.

The instructions for the can must strictly be observed. Use gloves and eye protection and avoid skin contact.

Hold the foam can in upright position, turn the gun to the can by holding the gun handle with one hand, and turn the can with the other hand. Make sure that the gun is not pointed at other persons when turning it. The can must not be screwed to the gun with the valve upside down or by turning the gun on the can. Care must be taken not to overtighten the adaptor and not to activate the valve during this process. Invert can and direct nozzle into gap, pressing gently on the trigger to establish the correct flow rate.

Joints should be underfilled to allow for post expansion of the foam. Fill to approximately 80-90% of joint depth for optimum results. BREEZE BLOCK exhibits low post-expansion compared with typical PU foams, which makes application to the appropriate depth into the joint easier. Care must be taken not to overfill joints as the foam will expand. Fresh foam spills must be removed immediately within the tack-free time with Bond It FOAM CLEANER. Cured foam must be removed mechanically.

- For best results always work with the canister in a vertical position and keep the valve pointed downwards.

- On horizontal surfaces always work away from the exuding bead and work upwards on all vertical surfaces.
- When filling deep joints apply in layers, waiting until each layer has skinned and partially cured before applying the next.
- Applying a light misting of clean water between each layer before subsequent application will assist adhesion and cure speed.
- Unstable areas may need to be clamped or secured during the curing process.

Please Note: Moisture is needed for an even and rapid curing of the foam. Inadequate moistening or overfilling of joints and cavities may lead to an unwanted post-expansion of the foam. Foam extrusion can be controlled accurately by varying the pressure on the adaptor or gun trigger. For foam extrusion the valve is pointed down but it will work through most angles. The valve lever is to be activated carefully. Once a can has been started, it should be used within four weeks.

Limitations

This foam is not for use around fire doors to provide a fire resistant seal to flames and smoke. Cured foam is sensitive to UV light and direct sunlight and therefore should be covered with suitable opaque sealant, filler, paint or other material. Lighter construction elements must be firmly fixed before application of the foam due to formulas high post expansion. As with all PU foams, it does not bond to polythene, Teflon®, siliconised or wax-like surfaces.

Cleaning

Excess foam can be removed whilst still wet using Bond It GUN FOAM CLEANER or Bond It MULTI-WIPES. Cured foam can only be removed mechanically.



Size

750ml aerosol canisters.

Colour

Green.

Shelf Life

Minimum 12 months from date of manufacture when stored according to manufacturers instructions in original unopened containers.

Storage Conditions

Store and transport upright, in cool, dry conditions between +5 and +30°C. (Considerably higher temperatures may reduce the shelf life). Do not store at temperatures over +50°C. Keep away from sources of heat and direct sunlight. Protect from frost.

Disposal of Containers

Do not leave empty containers where residue could be harmful to children, animals or the environment. Replace lids and remove any containers to a central disposal point in accordance with local regulations. Do not pierce can. In the event of spillage remove all sources of ignition, ventilate the area, remove people from confined areas. Material should be mopped up immediately with an inert absorbent material such as sand, collected and placed in a suitable container or allowed to vaporise.

Health & Safety

Extremely flammable aerosol. USE IN WELL VENTILATED CONDITIONS and ensure all recommended protective equipment is worn during handling & use of this product. Please refer to separate safety data sheet (SDS) for full handling, use and storage instructions. Keep out of reach of children. It is the user's responsibility to determine suitability for use. If in doubt, contact our Technical Department for advice.

Note: this information is for general guidance only, since site conditions and labour are beyond our control. It is recommended that users make their own tests to determine suitability.

Expanding Foam Uses And Advantages: The Full Works

- Spray foam is a flexible product that can be used in almost all locations, including outside. It can be sprayed into small gaps that cannot be filled by other means.
- Spray foam is very dense, and therefore works perfectly as a soundproofing option around noisy pipes, and between walls to keep sound from travelling.
- Spray foam is most often used as an insulation material and can be sprayed between rafters in your loft to provide fantastic insulation compared to other products.
- Spray foam is a safe and stable product, and does not release gases once it has set. It does need to be applied carefully, so always follow instructions.
- Spray foam really does last and will not need to be replaced after a few years like other insulation materials.

Specification Summary

| | |
|---|--|
| Tack-Free (TM 1014) | 6-10 minutes |
| Cutting Time | <30 minutes |
| Full Cure (Joint 3x5cm @ 23°C) | < 8 hours |
| Cell Structure | Closed cell |
| Curing Pressure (TM 1009, moistened surfaces) | <0.7kPa |
| Post Expansion (TM 1010) | <60% |
| Density In Joint (3x10cm; WGM106) | 17-22 Kg/m ³ |
| Dimensional Stability (TM 1004) | <1% |
| Temperature Resistance of Cured Foam | -50°C to +90°C |
| Working Temperature (Can, application surfaces) | +5°C to +30°C |
| Working Temperature (Air) | -5°C to +30°C |
| Tensile Strength/Elongation (TM 1018, dry surfaces) | >55kPa/ 27% |
| Tensile Strength/Elongation (TM 1018, moist surfaces) | >55kPa/ 20% |
| Compressive Strength (TM 1011 moistened surfaces) | >3kPa |
| Shear Strength (TM 1012 moistened surfaces) | >30kPa |
| Thermal Conductivity (EN12667, TM 1020) | 0.033W/(m K) |
| Sound Reduction Index Rst,w (EN ISO 10140) | 63dB |
| Water Vapour Permeability (EN 12086) | <0.086 mg/(m h Pa) |
| Foam Yield In Joint (3x5cm WGM107) | 15M / can |
| Foam Yield (TM 1003) per 750ml can | 43L |
| UN Class | 1950 Aerosols, Flammable 1 |
| Fire Class | B2 EN12114:2000 |
| Air Permeability | <0.1m ³ / [h.m(daPa) ^{2/3}] according to DIN18542 |

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

Product / Order Details

| Code | Colour | Fill | Barcode | UFI |
|---------|--------|-------|---------------|---------------------|
| BDBB750 | Green | 750ml | 5056437402134 | CXT0-R04G-A004-59AU |



Part of the Bond It PU Foams & Adhesives Range

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Certificate Number 6152
ISO 9001
ISO 14001
ISO 45001

Note: The data presented in this leaflet is in accordance with the present state of our knowledge, but does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties rights and, if necessary clarifying the position. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the products for a particular purpose.



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Supersedes:

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