B2 POLYURETHANE FOAM

Aerosol and Gun Grade Expanding PU Foam

Technical Data Sheet

PU FOAM & ADHESIVE RANGE

CLASS DIN4102:1 B2

Description:

A fast setting, multi-purpose PU foam which bonds, fills, seals and insulates most construction materials, which has a reaction to fire rating of class B2 (DIN4102:1).

Features & Benefits:

- ***B2 Fire Rating according to DIN 4102-1.***
- ***Low curing pressure.***
- ***High thermal and acoustic insulation value.***
- ***Good volume expansion for effective filling.***

Use

Bond It B2 FOAM is a one-component polyurethane assembly foam based on a moisture curing polyurethane prepolymer. Adheres to most common building materials including wood, concrete, stone, plaster, metal, PVC and polystyrene, however it will not stick to surfaces such as polyethylene, Teflon, silicone, oil and grease and similar. Foam does not shrink after curing keeping the risk of deformation of joints and separation from the surface minimal.

Areas of Application:

- Installation of window and door frames and entrance door linings (where a clean and controlled backfill is required).
- Filling of holes.
- Insulation of penetrations.
- Sealing of thermal and acoustic insulation boards.
- Sealing and connection of joints.
- Reducing the impact of thermal bridges.

The use of this product in certain fire rated situations may breach Building Regulations - if in doubt consult your local Building Control Office. For maximum fire resistance the cured foam should be overcoated with Bond It FIRESHIELD INTUMESCENT SEALANT or use Bond It B1 FIRE RATED PU FOAM.

Please note: this foam will burn in contact with flames but will self-extinguish when source of flame is removed.

Properties

The foam can be used at temperatures from +5°C to +35°C. The cured foam is semi-rigid and predominantly close-celled. It is resistant to temperatures ranging from -50°C to +90°C and to ageing, but not to UV-rays. to UV-rays. Noise and heat insulation values are excellent.

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. It is advisable to apply a primer well penetrating into the ground if necessary. All construction components must be properly prepared prior to foam application. It is advisable to have FOAM CLEANER at hand. Chilled cans must be carefully warmed in luke-warm water (below +45°C) before usage but avoid heating above +50°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.

Prior to work, the can must be shaken thoroughly at least 15-20 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.

With Straw Adapter: Hold the foam can in upright position. Screw the applicator (straw) firmly to the foam can valve. Shake the can vigorously at least 30 times. For application, turn the can upside down and press the applicator trigger. Use the applicator trigger to adjust the foam output.

With Gun Adapter: 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. Turn the can upside down and start applying. The foam output can be adjusted by the gun trigger. Turn the can upside down and press the applicator trigger, using the trigger to adjust the foam output.

The fresh foam will expand by 2-2½ times. Therefore care must be taken not to overfill joints. Fresh foam spills must be removed immediately within the tack-free time with Bond It FOAM CLEANER. Cured foam must be removed mechanically.

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 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. When using Handheld version lighter construction elements must be formly fixed before application of the foam due to formulas high post expansion. Gun Grade has moderate post expansion therefore deformation of building elements is reduced. 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 MULTI-WIPES. Cured foam can only be removed mechanically.

Size

750ml aerosol and gun grade canisters.

Colour

Buff.

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 +25°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. It contains an environmentally safe propellant, which complies to the latest EU regulations banning all CFC-propellants.

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.

Specification Summary

	GUN GRADE	HAND HELD
Tack-Free (TM 1014)	6-10 minutes	8-12 minutes
Cutting Time	<30 minutes	<60 minutes
Full Cure	<8 hours	<16 hours
Curing Pressure (TM 1009, moistened surfaces)	<2kPa	<7.5kPa
Post Expansion (TM 1010)	<80%	<150%
Density In Joint (3x10cm; WGM106)	15-19Kg/m³	21-25Kg/m³
Dimensional Stability (TM 1004)	<2%	<2%
Temperature Resistance of Cured Foam	-50°C to +90°C	-50°C to +90°C
Working Temperature (Can, application surfaces)	+5°C to +35°C	+5°C to +35°C
Tensile Strength/Elongation (TM 1018, dry surfaces	>60kPa/ 14%	>120kPa/ 18%
Tensile Strength/Elongation (TM 1018, moist surfaces	>60kPa/ 13%	>90kPa/ 13%
Compressive Strength (TM 1011 moistened surfaces)	>20kPa	>35kPa
Shear Strength (TM 1012 moistened surfaces)	>35kPa	>45kPa
Thermal Conductivity (EN12667, TM 1020)	0.033W/(m K)	0.033W/(m K)
Sound Reduction Index Rst,w (EN ISO 10140)	62dB	62dB
Water Vapour Permeability (EN 12086)	<0.06 mg/(m h Pa)	<0.04 mg/(m h Pa)
Foam Yield In Joint (3x5cm WGM107)	17M / can	
Foam Yield (TM 1003) per can	55L	35L
Commodity Code	3214900000	3214900000

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
BDEFB2	Buff	750ml	5060021367211	7A80-E0N0-J00X-7VVS
BDEFGB2	Buff	750ml (Gun Grade)	5060021367204	7A80-E0N0-J00X-7VVS

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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Part of the Bond It PU Foams & Adhesives Range

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