

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).

Bond It **B2 PU FOAM** is a one-component polyurethane assembly foam, and is based on a moisture curing polyurethane prepolymer.

Benefits:

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

Uses

The fresh foam 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 substrates.

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, door frames and entrance door linings.
- ◆ insulation of penetrations.
- ◆ sealing and connection of joints.
- ◆ sealing of thermal and acoustic insulation boards.
- ◆ 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 +30°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. 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.

The ideal working temperature for both the can and environment is +20°C. 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.

Handheld: Hold the foam can in upright position. Screw the applicator (straw) to the foam can valve. Shake the can vigorously at least 20 times. For application, turn the can upside down and press the applicator trigger. Use the applicator trigger to adjust the foam output.

Gun Grade: 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.

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. For foam extrusion the valve is pointed down. The valve lever is to be activated carefully. Once a can has been started, it should be used within four weeks.

Limitations

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 firmly 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.

Cleaning

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



Container Size

745ml aerosol and gun grade canisters.

Shelf Life

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.

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

Please refer to separate material safety data sheet for full handling, use and storage instructions. Keep out of reach of children. It is the users 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.

Specification Summary

	GUN GRADE	HAND HELD
Tack-Free (TM 1014)	6-10 minutes	8-12 minutes
Cutting Time	<30 minutes	<60 minutes
Full Cure (Joint 3x5cm @ 23°C)	< 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/m ³	21-25Kg/m ³
Dimensional Stability (TM 1004)	<2%	<2%
Temperature Resistance of Cured Foam	-50 to +90°C	-50 to +90°C
Working Temperature (Can, application surfaces)	+5°C-+30°C	+5°C-+30°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 R _{st,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	
UN Class	1950 Aerosols Flammable	1950 Aerosols Flammable
Foam Yield (TM 1003) per can	55L	35L
UFI	7A80-E0N0-J00X-7VVS??	

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	Size	Barcode
BDEFB2	Buff	745ml	5060021367211
BDEFGB2	Buff	745ml (Gun Grade)	5060021367204

The data presented in this leaflet are in accordance with the present state of our knowledge, but do 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.



Part of the Bond It PU Foams & Adhesives Range



Certificate Number:
6152
ISO 9001; ISO 14001;
ISO 45001



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