bond it

Never compromise on quality!

B1 FIRE RESISTANT POLYURETHANE FOAM

Aerosol and Gun Grade Fire Resistant Expanding PU Foam

Technical Data Sheet

PU FOAM & ADHESIVE RANGE

CLASS
EN1366-4, EN13501-2; DIN4102 pt 1 - B1

Description:

A one component, moisture curing, polyurethane foam, tested for fire resistance to Class B1. Available in aerosol or gun grade canisters.

Bond It **B1 FIRE RESISTANT PU FOAM** is a one-component polyurethane assembly foam, and is based on a moisture curing polyurethane prepolymer.

Benefits:

- ***B1 Fire Rating according to EN1366-4+A1:2010 and EN13501-2+A1:2013 and DIN4102.***
- ***Excellent adhesion to most construction materials.***
- ***Low curing pressure.***
- ***High thermal and acoustic insulation value.***
- ***Good volume expansion for effective filling.***
- ***Does not contain CFC's and H-CFC's.***

Uses

The fresh foam adheres to most common building materials however it will not stick to surfaces such as polyethylene, silicone, oil and grease and similar substrates.

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.

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 -30°C to +80°C and to ageing, but not to UV-rays. Noise and heat insulation values are excellent. ***This foam meets the requirements of Construction Materials Class B1 rating in accordance with DIN 4102 Part 1.***

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.

The ideal working temperature for both the can and environment is +20-25°C. Chilled cans must be carefully warmed before use either by leaving in an area at room temperature for 20 minutes or in luke-warm water (below +45°C) but avoid heating above +30°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 30 times. Then the adaptor is attached firmly to the valve. Care must be taken not to overtighten the adaptor and not to activate the valve during this process. Use gloves and eye protection and avoid skin contact.

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. Not suitable for PE, PP, PC, PMMA, PTFE, soft plastics, neoprene and bituminous substrates. Do not use in applications where continuous water immersion is possible. **Note: This product has been tested for fire resistance for joints and penetration seals. It has not been tested for use around fire doors so cannot be used as a fire resistant seal around designated fire doors.**

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.

Container Size

750ml 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 +25°C. (Considerably higher temperatures may reduce the shelf-life).

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.

Health & Safety

Extremely Flammable aerosol. Please refer to separate material safety data sheet for full handling, use and storage instructions. Keep out of reach of children. It contains an environmentally safe propellant, which complies to the latest EU regulations banning all CFC-propellants.

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.

Standards and Certificates

- Fire resistance according to EN 1366-4:2006 + A1:2010
- 180 minutes Fire resistance without using any backfilling material according to EN 1366-4 under certain condition
- Fire resistance according to ASTM E 814-13A(2017): Standard Test Method for Penetration Firestop Systems.

Fire resistance according to EN 1366-4+A1:2010, Classification according to EN 13501-2+A1:2013:

Foam Reference	Classification
A	EI180-V-X-W10
B	EI180-V-X-W10
C	EI190-V-X-W10 TO 30
D	EI190-V-X-W10 TO 40
E	EI180-T-X-W10
F	EI180-T-X-W10

Specification Summary

Volume Expansion	45-50 lt (750 ml)
Chemical Base	Polyurethane
Density (SEL DM31)	17 ± 3 kg/m³
Skin Formation	4-5 minutes
Tack Time	12-16 minutes
Cuttable (30mm bead)	Approx. 30 mins
Dimensional Stability	avg: -0.87%
Compression Strength (SEL DM60)	41.5 kPa
Tensile Strength	104.8 kPa
Full Cure @ 23°C	Minimum 16 hours
Minimum Working Temperature (Can, application surfaces)	+5°C
Maximum Working Temperature (Can, application surfaces)	+25°C
Optimum Working Temperature (Can, application surfaces)	+20°C
Temperature Resistance of The Cured Bead	Long-term: -30°C to +80°C
UN Class	1950 Aerosols Flammable
UFI	2N80-F0DK-S00X-V87G

Product / Order Details:

Code	Colour	Size	Barcode
BDEFR750	Pink	750ml	5060021360236
BDEFRG750	Pink	750ml (Gun Grade)	5060021363756

Part of the Bond It PU Foams & Adhesives Range

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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.

ISOQAR REGISTERED UKAS MANAGEMENT SYSTEMS 0026
Certificate Number: 6152
ISO 9001; ISO 14001; ISO 45001

MADE IN TURKEY · TÜRKİYE'DE YAPILDI

BOND IT
Head Office: *Unit G16 River Bank Way, Lowfields Business Park, Elland, West Yorkshire HX5 9DN.*
Telephone: +44 (0)1422 315300 Fax +44 (0)1422 315310
Email: salesuk@bonditgroup.com Website: www.bonditgroup.com

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