



Never compromise on quality!

FIRE RESISTANT PU EXPANDING FOAM

Description

A one component polyurethane foam, tested for fire resistance top EN1366-4:2006. Available in aerosol or gun grade canisters.

Bond It **FIRE RESISTANT EXPANDING FOAM** is a one-component polyurethane assembly foam, and is based on a moisture curing polyurethane prepolymer. It contains an environmentally safe propellant, which complies to the latest EU regulations banning all CFC-propellants. The development and manufacture of our products is subject to an approved quality assurance system according to ISO 9001/EN 29001.

Uses

The fresh foam adheres to all common building materials except from surfaces such as polyethylene, silicone, oil and grease and similar substrates.

Areas of Application:

- ◆ window setting (where a clean and controlled backfill is required),
- ◆ roller shutters (sealing of connection joints),
- ◆ entrance door linings,
- ◆ any kind of small breakthroughs in walls and other cavities.

Properties

The foam can be used at temperatures from +5°C to +25°C. The cured foam is semi-rigid and predominantly close-celled. It is resistant to temperatures ranging from -40°C to +100°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. 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 before usage. However,

the can must not be heated 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 in water. 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 15 - 20 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.

Application

The instructions for the can must strictly be observed. The fresh foam will expand by 1 ½ to 2 times. Therefore care must be taken not to overfill joints. Fresh foam spills must be removed immediately within the tack-free time with 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 or by tilting the adaptor. 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.

Container Size

750ml aerosol and gun-grade canisters.

Storage Conditions

Store and transport upright, in cool, dry conditions (Considerably higher temperatures may reduce the shelf-life). Shelf life is 12 months.

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 or burn can after use.

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

Contains combustible components and isocyanate.

◆ Flammable - remove all sources of ignition. In use, may form extremely flammable/explosive vapour-air mixture. Do not smoke.

- ◆ Avoid eye contact. In the event of contact wash with running water for 15 minutes and seek medical attention. Wear goggles.
- ◆ Ensure good ventilation - avoid breathing vapours - harmful by inhalation. In case of insufficient ventilation, wear suitable respiratory equipment. In case of accident or if you feel unwell, seek medical advice immediately (if possible show the label).
- ◆ Avoid prolonged contact with skin. Cured material will leave a brown stain, allow stain to fade naturally over 2-3 days. Do not try to remove with abrasive. Wear gloves.
- ◆ Thoroughly wash hands with soap and water or a proprietary hand cleaner after use.
- ◆ Keep out of reach of children.
- ◆ See separate material safety data sheet for full handling, use and storage.

Specification Summary

(determined at +23 °C, 50 % relative air humidity)

Yield, free expansion	bulk density approx 20-25kg/m ³
750 ml can	approx 38 litres
Cell-structure	Predominantly closed cell, medium-fine
Tack-free	9-11 minutes
Cutable (30mm bead)	after 30-40 minutes
Full cure @ 23°C	minimum 18hours
Minimum working temperature (Can, application surfaces)	+5°C
Maximum working temperature (Can, application surfaces)	+25°C
Optimum working temperature (Can, application surfaces)	+20°C
Tensile strength (in accordance to BS 5241)	10 N/cm ²
Compressive strength at 10% stress (in accordance to DIN 53421)	3 N/cm ²
Water absorption (in accordance to DIN 53433)	0.3 Vol.-%
Thermal conductivity approx.	0.03 W/mK
Temperature resistance of the cured bead	
Long-term	-50°C to +90°C
Short-term	-65°C to +130°C

Container Sizes:

Code:	BDEFR750	BDEFRG750
Size:	750ml	750ml

The data given herein is intended as a general guideline only. Actual results achieved may vary with working conditions and the materials involved; which are beyond the control of the manufacturer. Results achieved may not constitute any ground for a claim against the manufacturer. The manufacturer can only guarantee the quality of the product itself. This data sheet cancels and replaces all previous editions.

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FLAMMABILITY RATING:

BS476 part 20 Warrington Fire Research report Warres no. 117611.

Test Ref.	Gap Width (mm)	Seal Depth (mm)	Orientation	Description	Integrity (mins)	Insulation (mins)
A	45	220	Wall mounted	PU foam /mineral fibre core	240	240
B	30	220	Wall mounted	PU foam /mineral fibre core	240	240
C	20	180	Wall mounted	PU Foam	86	86
D	15	220	Wall mounted	PU Foam	240	240
E	15	120	Wall mounted	PU Foam	71	69
F	45	250	Floor mounted	PU foam /mineral fibre core	240	240
G	30	250	Floor mounted	PU foam /mineral fibre core	240	240
H	20	140	Floor mounted	PU Foam	115	113
I	15	100	Floor mounted	PU Foam	59	58
J	15	200	Floor mounted	PU Foam	206	206

The test was discontinued after a period of 240 minutes.

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