

Alfas Bond FR

Description

Alfas Bond FR is a one-component polyurethane (PU) foam, packaged in aerosol form for in-situ application. The propellants used are CFC and (H)CFC free and have a zero ozone depletion potential. The product expands and cures on application through the absorption of moisture from the atmosphere. The cured foam has a substantially closed cell structure throughout and hardens to a semi-rigid form which is both firm and yielding and yet can be trimmed using a sharp knife.

Alfas Bond FR is available in two types of canister: In-situ Grade (dispensed via a plastic nozzle) and a Gun Grade (for use with the Alfas Bond FR Application Gun). A dual purpose solvent and spray cleaner (Webbflex PU Foam Solvent Cleaner) is available for cleaning the guns and ancillary equipment, details available upon request from the Sales Office.

Typical Uses

Alfas Bond FR has excellent adhesive properties and once set, forms a strong bond to most building materials such as wood, brick, stone, cement, plaster, polystyrene, cable sheaths, metals and many plastics. This product acts as a fire seal for up to 4 hours when tested to BS 476 Part 20 or for longer periods when used in conjunction with Alfacryl FR. Refer to separate literature for advice on joint design & fire performance.

Storage

Store between +5°C and +25°C in dry conditions in original packaging. Shelf life is approximately 9 months.



Surface Preparation

No special surface preparation is required but surfaces in contact with the product must be clean of loose matter, grease or oils. In dry conditions, curing will be assisted by wetting the contact surfaces immediately prior to application.

Application

The canister must be well shaken to mix the contents and must be inverted during use. The Gun Grade allows greater control on application and permits the storage (for short periods of time) of partially used canisters. Care should be taken on application to allow for expansion of the foam during curing.

Where gaps deeper than 50mm are to be filled, the Alfas Bond FR should be applied in layers allowing each to cure properly.

Within the first few minutes of application, splashes of material may be removed from unwanted (nonporous) surfaces using a suitable solvent (eg. Webbflex PU Solvent Cleaner). Care should be taken to ensure that the solvent used will not stain or attack the surfaces onto which it is being applied. The yield and rate of cure will vary according to temperature and humidity.

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Physical Properties

Characteristic	Units / Test Method	Alfas Bond FR
Packaging		700 ml x 12
Colour		Light Grey
Flame Retardancy	DIN 4102 Part 1	B 1
Fire Resistance (Detailed independent test report available upon request)	BS 476 Part 20 10mm vertical joint 20mm vertical joint	> 4 hours > 5 hours with Alfasil FR > 5 hours with Alfacyrl FR > 4 hours > 4 hours with Alfasil FR > 5 hours with Alfacyrl FR
Acoustic damping	DIN 52 210	58dB maximum limit
Free Rise Density	kg/m ³ to DIN 53420	28-35
Compressive Strength 10% deflection	kPa to ISO 844	50
Elongation at break	% to DIN 455	25
Closed Cell Structure	%	> 60
NES 713 Toxicity Index	-	7.58
Biological		Resistant to attack by fungus, insects or vermin
Tack Free Time	Mins (at 23°C, 55% RH)	8 – 13
Trimable Time		40 – 60
Application Temperature	°C	+5 to +25
Service Temperature	°C	-40 to +90
Short Periods	°C	-40 to +130
Tensile Strength	KPa	80
Thermal Conductivity	W/m/k	0.035

Limitations

Alfas Bond FR will not adhere to Teflon, polythene or silicone coated surfaces. Loose components may need to be clamped or secured in position at least until foam sets. Surrounding surfaces should be suitably masked and protective clothing worn. The cured foam is not resistant to UV light and should be protected where necessary using Alfasil FR, Alfacyrl FR or a suitable fire rated surface coating.

Health and Safety

The product is non-hazardous in normal use. Material Safety Data Sheet is available upon request.