

Fire Rated Acoustic PU Foam



Trade Name: ASTRO FR ACOUSTIC FOAM



BS 476 Part 20

Sold in single / multiple units or packs.

Each can yields up to 28 litres

Forms a semi-rigid seal

Up to 58dB sound reduction.

Self curing

NHBC Type Approval

Description

ASTROflame Fire Rated Acoustic PU Foam is a one component polyurethane foam which expands to fill and seal gaps. Note: This product is fire rated but is not intumescent.

The product cures quickly through the absorption of moisture from the atmosphere and has excellent adhesive properties. Once set, ASTRO FR Acoustic Foam forms a strong bond to most building materials such as wood, brick, stone, cement, plaster, polystyrene, metals and many plastics. ASTRO FR Acoustic Foam acts as a fire seal in accordance with BS476 Part 20 and meets Class B1 of DIN 4102 Part 1. NHBC Type Approval

The cured foam has a substantially closed cell structure throughout. It hardens to a semi-rigid form which is both firm and yielding (approximate movement accommodation +/- 5%).

Composition A one component aerosol packed polyurethane foam that cures by moisture absorption to form a semi-rigid foam.

Change After Application After release the foam expands to form a semi-rigid sealer/adhesive.

Containers Supplied in 700ml pressurised containers.

Yield Up to 28 litres (700ml size).

The table below gives product fire rating figures.

Depth mm	Width mm				
	10	20	30	40	50
10	280	140	93	70	56
20	140	70	46	35	28
30	93	46	31	23	18
40	70	35	23	17	14
50	56	28	18	14	11

Acoustic Data

The results obtained were the best possible at 58dB maximum damping.

This was achieved when the surface of the expanded foam was cut back flush to the wall surface.

When the foam was left in its normal expanded form (i.e. where the surface is fused into a continuous mass by localised collapse of cells at the foam surface) the value was slightly reduced to 54.3dB.

MAXIMUM DAMPING	58dB maximum limit value
EMPTY JOINT	18dB
FILLED JOINT	54dB
FILLED JOINT WITH FOAM CUT FLUSH	58dB maximum

The test piece was two hollow sections of aluminium extrusion 100 x 50 mm at a length of 1200 mm which are filled with sand to dampen the sound transfer and positioned in a parallel orientation with a joint gap of 10 mm (as used in our test-the gap can be varied and 10 mm was chosen for a specific application at the time of the test). This resulted a joint size of 1200 x 100 x10 mm.

The test piece is then placed horizontally in a sound proof room. The noise generator is placed in the room and the reduction in transmitted sound recorded in an adjacent sound proof room. The reduction in noise is reported as the damping efficiency .(i.e. only sound transmitted through the joint effects the damping rating).

Installation

No special surface preparation or primers are required but surfaces in contact with the product must be clean of loose matter, grease or oils. ASTRO FR Acoustic Foam will not adhere to Teflon, polythene or silicone coated surfaces. Loose components may need to be clamped or secured in position at least until the foam sets. Surrounding surfaces should be suitably masked and protective clothing worn.

The container must be shaken before use to thoroughly mix contents and must be inverted during use. Where gaps deeper than 50mm are to be filled, the ASTRO FR Acoustic Foam must be applied in layers allowing each to cure properly.

Within the first few minutes of application, splashes of material may be removed from unwanted (non-porous) surfaces using a suitable solvent. However 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. Curing will be assisted by wetting the contact surfaces immediately prior to application. Once fully cured ASTRO FR Foam can only be removed by mechanical means. Excess material may be trimmed off using a sharp knife or sanded down.

Packing

PRODUCT CODE: AFFRFOAM

Sold individually or available to order in any quantity,

To Order & Specify

Please quote - Quantity / Trade name / Product ref / Size

Typical wording - 20 / ASTRO FR ACOUSTIC FOAM / AFFRFOAM / 700ml

Fire Test Or Assessment Report

NHBC Type Approval

Health And Safety

The product does not present any known health hazards during or after installation. Normal good industrial and personal hygiene practises should be observed.

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