

category	sound absorber
description	duct foam – fire retardant
part code	F110, F120, F130, F140, F142, F144



**Custom
Audio
Designs**



F110 DUCT FOAM is a fire retardant, modified polyurethane acoustic foam designed to meet the stringent requirements of British Building Regulations.

Dark grey/black in colour, duct foam is CFC- and HCFC-free.

This product is also known as Pyrosorb, FR or PUNF foam.

Advantages

- Available in sheet form
- Flexible and easy to cut
- Easy to handle and install
- **CFC- and HCFC-free**
- Available with various facing options
- Available with optional self-adhesive backing

Applications

Our PU-FR Fire Retardant Acoustic Duct Foam is used for internal duct linings, thermal/acoustic machine linings and wall/ceiling acoustic absorptive panels. It can also be used as part of composites combined with acoustic barrier materials. It is extremely versatile and highly adaptive.

Bespoke

Subject to minimum order requirements, we can cut this foam to any thickness from 6mm up to 200mm.

We can also trim sheets to specific sizes from 2m x 1.2m.

A wide range of add-on facing options is also available – please contact our technical department for details.

Fire Performance

Custom Audio Designs' PU-FR Duct Foam conforms to the following fire specifications:

- | | |
|------------------------------|----------------------|
| • BS 476: Parts 6&7 | Class 0 |
| • BS 476: Part 5: 1979 | Class P |
| • BS 476: Part 6: 1981 | F.p.i. index 8.5 |
| • BS 476: Part 7: 1987 | Class 1 |
| • BS 4735 | Char 4.5mm |
| • BS 5852 Part 2 | Pass |
| • Civil Aviation CAA8 / FAA | Pass |
| • Flammability (FMVSS 302) | Zero burn rate |
| | • Self extinguishing |
| • ASTM 1692: 1974 | Resists ignition |
| • UL 94 Classification | 94-V-0 |
| • ATS1000.001 Smoke Toxicity | Pass |

See page 2 for technical specifications and acoustic performance data

Installation Guidelines

Installing **plain** PU-FR foam can be accomplished by either bonding or using mechanical fixings, or a combination of both.

- The substrate should be dry, clean and free from oil and grease (this can be achieved using solvent cleaner).
- For vertical surfaces the foam should be laid, cross-bonded, from the

bottom upwards using a suitable adhesive (e.g. our product code A260).

- For overhead or inverted surfaces, a combination of bonding and mechanical fixings must be used to avoid sagging of the foam. Installing the **self-adhesive** version is similar to the above process. If the foam needs to be cut to size then this is best done before the adhesive backing is removed.

- When the foam has been cut to size, peel back one edge of the backing paper, align this edge of the material as required, then gently peel off the backing paper completely and press until the panel is fixed firmly.

Note: When using PU-FR foam greater than 25mm thick on vertical surfaces it is necessary to use additional mechanical fixings to help support the foam.

Part code	Description	Thickness	Size	Area
F110	FR12 Fire retardant duct foam – plain	12mm	1m x 1.2m	1.2m ²
F120	FR12SA Fire retardant duct foam – self-adhesive	12mm	1m x 1.2m	1.2m ²
F130	FR25 Fire retardant duct foam – plain	25mm	1m x 1.2m	1.2m ²
F140	FR25SA Fire retardant duct foam – self-adhesive	25mm	1m x 1.2m	1.2m ²
F142	FR50 Fire retardant duct foam – plain	50mm	1m x 1.2m	1.2m ²
F144	FR50SA Fire retardant duct foam – self-adhesive	50mm	1m x 1.2m	1.2m ²

Other thicknesses can be obtained on request.

Technical Specification

Product	F110/F120/F130/F140 Foam
Description	Duct foam – fire retardant
Standard sheet size	1.2m x 1m
Density	Approx. 80–90 kg/m ³
Standard thicknesses	12mm and 25mm
Thermal conductivity	0.05 W/mK
Tensile strength	88 kps
Elongation at break	188%
Operating temperatures	80°C (maximum continuous) 110°C (intermittent) -30°C (minimum)

Acoustic Performance

Random Incident Sound Absorption Coefficients (BS EN 2034:1993)

Material/HZ	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
12mm PUFR	0.08	0.14	0.22	0.32	0.40	0.53	0.27
25mm PUFR	0.08	0.20	0.56	0.93	0.84	0.92	0.63
50mm PUFR*	0.19	0.49	0.87	0.97	0.97	1.00	0.76

*Non-stock item, available to special order only.

Ductwork Attenuation (dB/m) – Airborne noise (BS4718:1971)

Material/HZ	Duct size	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz
12mm PUFR	900x600	0.2	0.6	1.7	3.7	5.3	4.5
25mm PUFR	900x600	0.2	0.8	2.9	10.8	6.9	7.2
50mm PUFR*	900x600	0.8	1.9	7.2	11.0	7.1	6.2
25mm PUFR	450x600	0.4	1.0	3.3	14.1	8.3	8.9
50mm PUFR*	450x600	1.6	3.1	8.7	16.6	8.8	8.6
25mm PUFR	300x600	0.6	1.4	3.8	15.1	12.0	11.4
50mm PUFR*	300x600	2.6	5.4	10.5	19.5	15.1	11.6

*Non-stock item, available to special order only.