

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



F110 DUCT FOAM is a PU-FR Fire Retardant Acoustic Duct Foam that is used for internal and external duct linings, thermal/acoustic machine linings and suspended ceiling absorptive panels. It can also be used as part of composites combined with acoustic barrier materials. It is extremely versatile and highly adaptive. This product is also known as PUNF foam, FR foam, Fireseal and Pyrosorb.

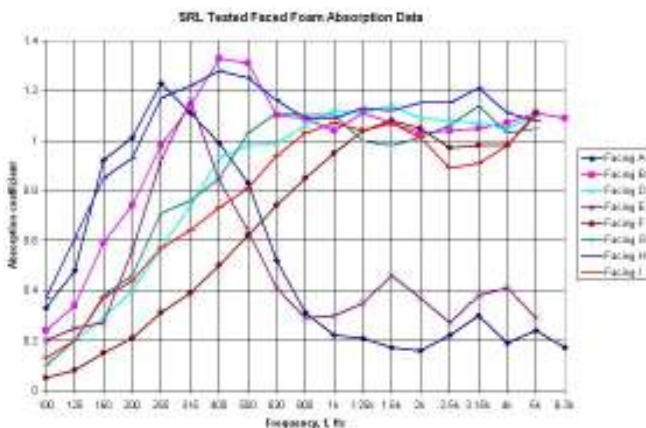
Advantages

- Designed to meet stringent British Building Regulations
- Available in sheet form
- Flexible, easy to cut and install
- **CFC- and HCFC-free**
- Various facing options
- Optional self-adhesive backing
- Also known as PUNF foam, FR foam, Fireseal and Pyrosorb.

Specialist foam facings for improved LF absorption

We have developed a number of specialist facings with particular foams for improved low frequency absorption which is often required when dealing with industrial noise issues, machine enclosures and fan casings, etc. We have managed to achieve 50% efficiency as low as 125Hz and 100% efficiency from 200Hz upwards.

The acoustic test data is shown below but it's a good idea to discuss your requirements with our technical team.



FACING OPTIONS

FGC.BK	Black/white weavelocked glass cloth
FPG.WH	White polyurethane-coated glass cloth
FPP.BK	Black/White polyurethane film
FPP	Perforated black/white/grey PVC facing
FAG	Aluminium foil laminated to glass fibre fabric
FOF	Reinforced aluminium foil
FMP	Metalized polyester film
FMP.SC	Metalized polyester film with scrim
FVT.BK	Black viscose tissue
SB	Spray applied black/white/grey PVC

All the above are also available with self-adhesive foam

Technical Specification

Product - F110-F144 Fire retardant duct foam

Colour	Black
Standard sheet size	1.2m x 1m
Part Code F110	12mm plain
Part Code F120	12mm adhesive backed
Part Code F130	25mm plain
Part Code F140	25mm adhesive backed
Part Code F142	50mm plain
Part Code F144	50mm adhesive backed
Density	Approx. 80–90 kg/m ³
Tensile strength	88kps
Thermal conductivity	0.05 W/mK
Elongation at break	188%
Indentation hardness	156N
Operating temperatures	-30°C (minimum) to 110°C (maximum intermittent) 80°C (maximum continuous)

Flammability

Product - F110-F144 Fire retardant duct foam

FMV302	Zero burn rate, self-extinguishing
BS476 Parts 6&7	Class 0
CAA8 / FAA	Pass all grades
UL94	Pass Rating 94-V-0
PSA/FR3	Passes Source 5
ASTM 1692 1974	Resists ignition

Size

Subject to minimum order requirements, we can:

- cut this foam to any thickness from 6mm up to 100mm
- trim sheets to custom sizes from 2m x 1.2m
- add facing, from a wide range of fabric options – see table left for details.

Acoustic Performance

Absorption Coefficients

Material/HZ	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
12mm	0.05	0.15	0.20	0.35	0.40	0.45	0.28
25mm	0.10	0.25	0.45	0.60	0.64	0.75	0.49
50mm	0.25	0.45	0.70	0.85	0.85	1.00	0.70

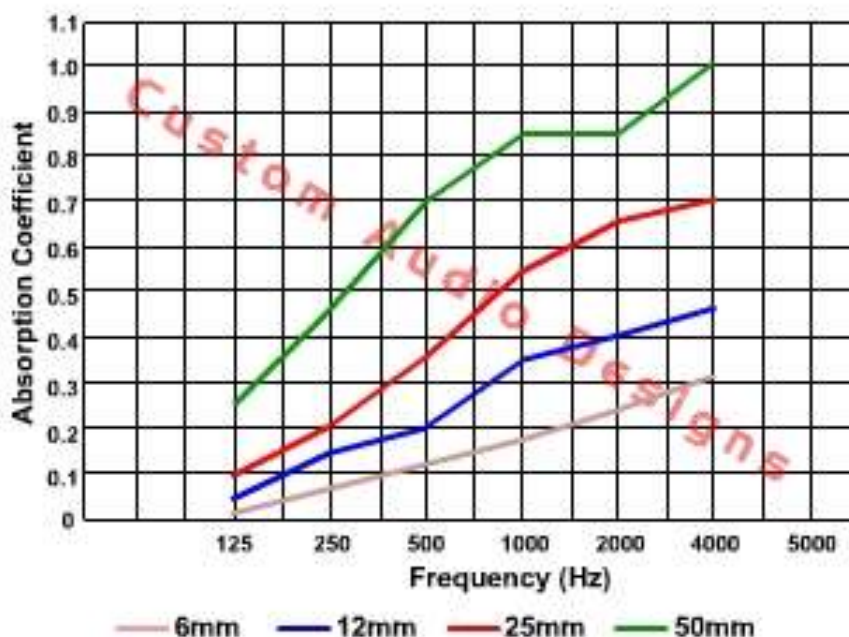
Ductwork Attenuation (dB/m) – Airborne noise

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

Ductwork Attenuation (dB) – Breakout noise

Material/HZ	Duct size	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz
12mm	900x600	0.2	0.6	1.7	3.7	5.3	4.5

Random Incidence Absorption Coefficient



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.