

Advantages

- Available in sheet form.
- Flexible and easily cut.
- Easy to handle and install.
- Suitable for curved surfaces or complex shapes.
- Available with a self-adhesive backing.

Applications

Wilhams WH25/1FR acoustic foam is typically used for machinery enclosures, doors, walls, partitions and air conditioning ducts. It is also ideal for insulating cabs of industrial vehicles and enclosures for vehicle and boat engines. For wall and machinery enclosures, the acoustic performance of Wilhams WH25/1FR can be dramatically enhanced when used in combination with Wilhams WDS damping sheet (see data sheet 3/01). Wilhams WH25/1FR is a non-dusting and flexible acoustic foam that provides excellent sound absorption.

Description

Wilhams WH25/1FR acoustic foam is a fire retardant polyether based polyurethane foam designed to provide acoustic and fire resistant properties. It is grey in colour and flexible to use and handle.

Physical Information

Standard sheet size: 2m x 1.2m
Standard thicknesses: 12mm, 25mm, 35mm, and 50mm.

Density	23-25 kg/m ³
Indentation Hardness	125-155 N
Tensile strength	70 kps
Elongation at break	150% (minimum unaged)
Operating temperatures	80°C(max continuous) 110°C (intermittent) -30°C (minimum)

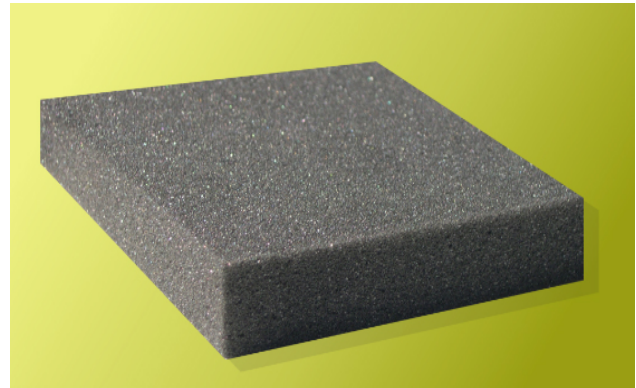
Technical Information

Wilhams WH25/1FR acoustic foam conforms to the following specifications:

Fire Tests

- BS 4735 : 1974* – Complies
- Flammability (FMVSS 302) – Pass

* BS 4735 contains the statement “The test results relate to the behaviour of the test specimens under particular conditions of test; they should not be used as a means of assessing the potential fire hazard of the material in use”.



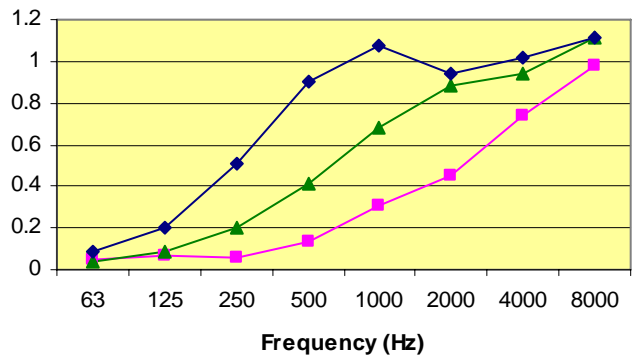
Acoustic Performance

Wilhams WH25/1FR acoustic foam is a high performance material that has been acoustically tested as follows.

Random Incidence Sound Absorption Coefficients

Material \ Hz	63	125	250	500	1k	2k	4k	8k
12mm WH25/1FR	0.05	0.07	0.06	0.13	0.31	0.45	0.74	0.98
25mm WH25/1FR	0.04	0.09	0.20	0.41	0.68	0.88	0.94	1.11
50mm WH25/1FR	0.09	0.20	0.51	0.90	1.08	0.94	1.02	1.11

dB Sound Reduction Index



—■— 12mm WH25/1FR	—▲— 25mm WH25/1FR
—◆— 50mm WH25/1FR	

Facing and Backing Materials

Wilhams WH25/1FR acoustic foam is available in plain format or with a wide range of facing and backing

materials to suit the application or to ease installation. Standard surface treatments available are:

- Self Adhesive Backing
- Class 'O' Foil Facing (COFF)
- Melinex Facing

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Installation Guidelines

Wilhams WH25/1FR acoustic foam is easy to handle and simple to install. To facilitate easy handling it is recommended that WH25/1FR foam be installed in sheets not larger than 2m x 1.2m.

Plain WH25/1FR Foam

Installing plain WH25/1FR foam can be accomplished by either bonding or using mechanical fixings, or a combination of both.

- First, ensure that the substrate surface is dry, clean and free from oil and grease (this can be achieved using a solvent)
- For vertical surfaces, the WH25/1FR foam should be laid, cross bonded, from the bottom upwards using a suitable adhesive.
- For overhead or inverted surfaces, due to its lightweight, the WH25/1FR can be fitted without the need for mechanical fixings and the use of adhesive only is usually sufficient to hold the acoustic foam in place.

Self Adhesive WH25/1FR foam

Installing WH25/1FR foam with a self adhesive backing provides a quick and efficient means of applying the acoustic foam

- First, ensure that the substrate surface is dry, clean and free from oil and grease (this can be achieved using a solvent)
- The WH25/1FR foam with a self adhesive backing is protected with a backing paper that can be peeled off. If it is required to cut the acoustic foam to size, it is recommended this is undertaken before removal of the protective backing.
- When the acoustic foam is cut to size, peel back one edge of the backing paper and line the material edge up square, then gently peel off completely and press until the panel is fixed firmly.
- Apply an even pressure by pad or roller to ensure intimate contact between the self adhesive film and the substrate surface

Installation Accessories

Wilhams can recommend the following products to assist installation

Aerosol Adhesive

Wilhams SPRAYTACK is a specially formulated non-flammable synthetic rubber adhesive. Available in 500ml aerosol cans, which provides approximately 5m² coverage. SPRAYTACK is a contact adhesive that requires application to both surfaces before bonding.

Brush Applied Adhesive

Wilhams A8514 is a low n-Hexane formula designed specifically for Wilhams acoustic foams, and provides rapid tack development. Available in 5 litre cans, which provides approximately 3m² coverage. Wilhams A8514 can be used either as a one way wet or two way dry contact adhesive.

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