



Bitumen Damping Sheet

Bitumen based Damping Sheets are designed to reduce acoustic and vibrational noise of sheet metal and improve sound insulation performance of a substrate by adding mass. The sheets are manufactured from bitumen, synthetic rubber, and minerals to create a flexible, visco-elastic material. Bitumen based Damping Sheets are available in five standard grades, two of which have aluminium foil embossed on one side for improved acoustic performance.



Key Features and Benefits

- Excellent vibration damping properties
- Effective noise barrier
- Fire resistant
- Can be cut to bespoke shapes and sizes

Bitumen Damping Sheet

Applications

- Vehicle panels
- Preparation tables
- Mechanical Services Equipment
- Industrial Equipment
- Railway and automotive applications

Colour and Finish

Base material – Black

Surface finish – Black or Silver

Operating Temperature

Suitable for use on substrates operating at continuous temperatures between -20°C and 90°C (normal damping) and -20°C and 110°C (constrained damping).

Damping sheets should be applied when the ambient temperature is between 18°C and 25°C. The material should not be handled when the temperature is below 5°C as it could become brittle and break.

Fire Performance

Bitumen based Damping Sheets meet V2 rating against UL94. DS 3A and DS 5A are supplied with a Class 1 aluminium foil facing on one side to BS476 Part 7: 1987

Storage

Bitumen based Damping Sheets should be used within 6 months.

Dimensions and Weight

Product	Thickness mm	Weight Kg/m ²	Colour	Sheet Size mm
DS 3	1.5	3	Black	1500 x 1000
DS 3A	1.5	3	Silver	1500 x 1000
DS 5	2.5	5	Black	1500 x 1000
DS 5A	2.5	5	Silver	1500 x 1000
DS 10	5	10	Black	1500 x 1000

Acoustic Performance

0.8mm Steel	Sound Transmission Loss dB					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Untreated	8	14	20	26	32	39
Treated with DS 10	27	32	32	33	41	43

* An example of Improvement in sound transmission loss on 0.8mm steel

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Technical Advice

Highly qualified building and acoustic consultants are available to offer assistance and advice to clients, architects and contractors on all aspects of noise control to ensure design specifications and acoustic performance requirements are achieved. They can also undertake noise surveys and provide details of anticipated reverberation times pre and post installation.

Application and Fixing

To obtain optimum bonding strength from the self-adhesive backing follow these instructions:

1. Allow product to stabilize at room temperature prior to use.
2. Apply in the horizontal or vertical plane. Where there is a requirement for the damping sheet to be applied to the underside of a substrate, the substrate should be turned upside down if possible. The damping sheet can then be applied to the underside and left until the adhesive has fully cured before turning the substrate back to its correct position. If re-orientation of the substrate is not possible, the damping sheet can be applied from the underside providing it is supported against the substrate until adhesive cures. A form of permanent mechanical fixing is recommended.
3. Clean and dry the substrate so that it is free from oil, rust, etc. For applications onto timber substrates, the surfaces should be prepared using a primary coat of A3038 Neoprene Adhesive.
4. Peel off backing and apply a constant forward and downward pressure to the surface of the damping sheet to ensure it is securely fixed to the substrate.
5. Care must be taken to avoid forming air pockets between substrate and self-adhesive backing.