

# Sound Insulation In The Home

acoustilay

maxiboard

subPrimo

soundstop

coustifoam



**sound**  
reduction  
**systems**

Manufacturers of Acoustic Insulation Products

# Introduction

## Introduction

Sound Reduction Systems Ltd (SRS) is a leading manufacturer of sound insulation materials for use in residential buildings. With over 25 years of experience in the building industry, our team of qualified personnel are able to provide simple practical advice and effective solutions to many domestic noise problems. In the next few pages you will find solutions to the most common noise problems faced by residents.

Acoustics can be a very complex subject with many confusing terms, but in general, people are not really interested in the finer detail. We want to know what the improvement will be and tend to think in terms of apparent loudness. The information given in the table below should help:

Improvement	Change in apparent loudness
3dB	Noticeable
5dB	Good improvement
10dB	Halved

If you do want to go into the detail, you must make sure that you are comparing like with like when looking at test data. Don't fall into the trap of comparing results from laboratory tests with those produced in real conditions on site, as reproducing the perfect acoustic conditions of a laboratory is impossible in your home. Typically, a construction tested under laboratory conditions will be around 5dB better than the same construction tested on site.

If your particular situation is not shown in the following paragraphs or you need further advice, please contact our helpful and friendly technical staff on **01204 380074** who will be able to talk you through potential solutions. Or if you prefer, e-mail the team at [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk) with your query. Don't let noise be a problem; let SRS guide you to an effective solution.

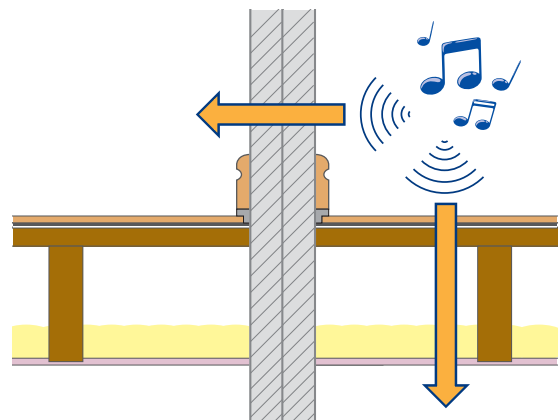
## Acoustic Insulation

To effectively control noise, it is important to understand the difference between sound absorption and sound insulation, as the two are often confused. Sound absorption relates to the amount of reverberation within a room and its effect on sound quality and intelligibility. Sound insulation, on the other hand, relates to the actual reduction in sound travelling from one area to another through a wall, floor or ceiling.

Sound transmission in buildings results from both airborne and impact noise.

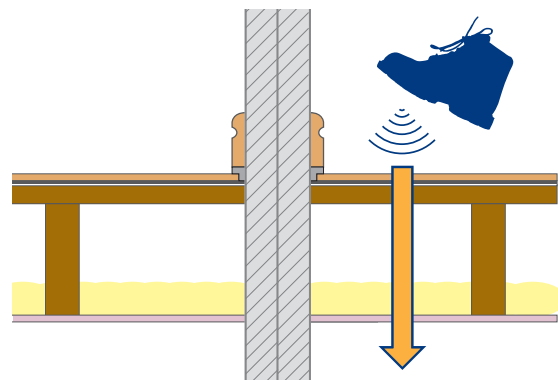
### Airborne Noise

Airborne sound is generated typically from sources such as voices, Hi-Fi systems or TV sets, and travels through the air into the structure of a building, and out again into adjoining rooms.



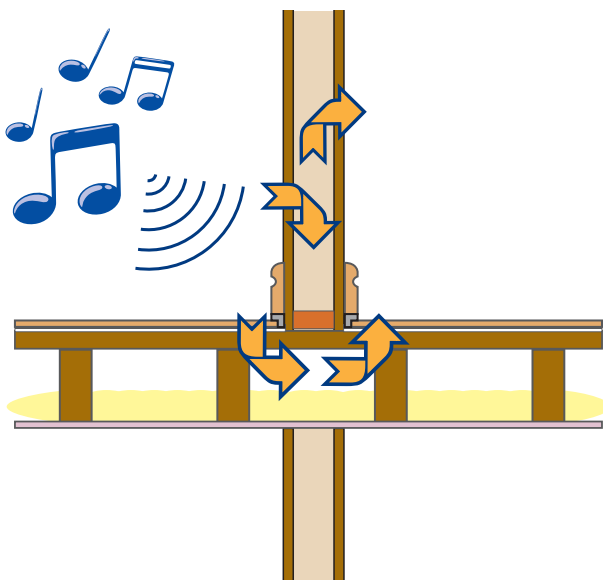
### Impact Noise

Impact sound is the result of physical excitation of the structure of a floor by impacts from footfall, moving furniture and dropped items.



## Be careful!

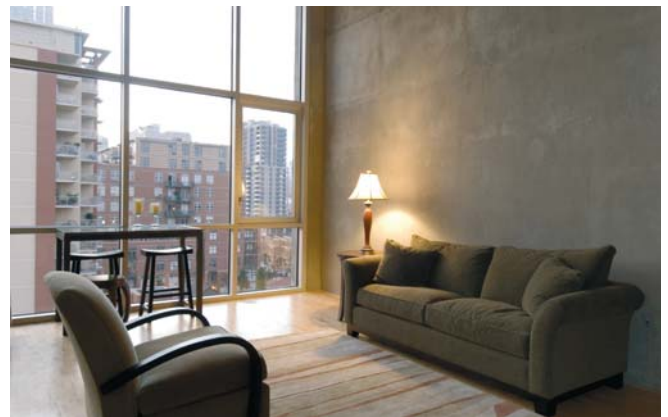
Please remember that the degree of improvement you will achieve using any sound insulating material will vary with the quality of the installation and the existing structure of your home. Airtightness is key to effective sound insulation. We can liken sound to water, in that it will 'leak' through any gaps/holes in the construction – installers must ensure that a construction is properly sealed. Another common problem that can affect the acoustic performance of your home is 'flanking'. Flanking occurs when sound travels around the primary separating element, be it a wall or floor/ceiling construction, via an acoustically weak path.



 Flanking paths

## Decibel (dB)

The unit of measurement of sound intensity, pressure or power, and in relation to sound insulation, the measurement of level reduction. The decibel is measured as a logarithmic unit to compress a very wide scale of numbers, hence you should be aware that a doubling or halving of apparent loudness is indicated by an increase or decrease of 10dB.



## Contents

Introduction to Building Acoustics . . . . .	2 - 3
Noise coming through walls . . . . .	4
Noise coming through floors and ceilings . .	5 - 6
Noisy central heating boilers, pumps, pipes and motors . . . . .	7
Noisy Washing Machines . . . . .	7
Acoustic Performance . . . . .	7
Installation . . . . .	7
SRS Distributors . . . . .	8

## Useful Contact Details

Technical and General Enquiries  
 Tel/Fax: 01204 380074 / 380957  
 Email: [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk)

# Noise coming through walls

## Introduction

Apartments, terraced and semi-detached properties can all have walls shared with other people, and sometimes you might feel that you're being forced to listen to everything they do! You might like to create a space for activities such as music practice but don't want to disturb other people. Equally so, you may simply wish to reduce the noise coming from other rooms within your own house.

SRS's solution to this is to fit an independent wall lining of our acoustic building board, Maxiboard, which can then be decorated to match your existing room. Maxiboard provides a highly effective solution and only adds minimal thickness to an existing wall - usually around 60mm.



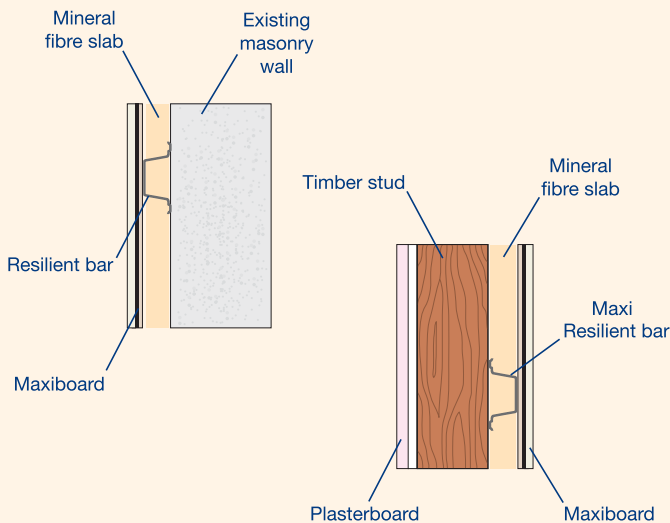
## Existing Masonry & Timber Stud Wall Treatment

### Products:

Maxiboard  
SRS Gripfix  
SRS Acoustic Sealant  
Maxi Resilient Bars  
Mineral Fibre Slab  
Maxi HP Screws

### Tools:

Tape Measure  
Sealant Gun  
Circular saw, Jigsaw or Hand saw  
Electric Drill/Screwdriver  
Step Ladders  
Trimming Knife



## Method\*:

Fix Maxi Resilient Bars horizontally across the full width of the masonry wall or exposed timber studwork at 600mm centres. Place mineral fibre slab between the bars, and screw the Maxiboards to the resilient bars. A bead of SRS Gripfix is placed along each edge of the boards. Where Maxiboard abuts a wall, floor or ceiling, the shiplap edge should be removed, and a bead of SRS Acoustic Sealant, placed along the cut edge. The Maxiboard is usually overboarded with a layer of standard 9.5mm wallboard and a skim coat of plaster to finish.

## NOTES:

- Great care should be taken to ensure no screw fixings penetrate through the resilient bars, and touch the existing wall or studwork.
- For enhanced performance, a fully independent wall-lining should be installed: typically 50mm deep metal or 75mm deep timber stud framework, not in contact with the existing wall; 50mm thick mineral wool slab (45kg/m<sup>3</sup>) infill to frame; one layer Maxiboard fixed to frame; acoustic sealant to perimeters; one layer plasterboard fixed to Maxiboard to carry skim or taped finish; Typical overall depth 85-90mm.
- Where adjacent walls are drylined with plasterboard on dabs, the Maxiboard should continue through the existing plasterboard, meeting and sealing with the solid wall behind.

\* Full installation details are available from [www.soundreduction.co.uk](http://www.soundreduction.co.uk), or you can contact us by tel: 01204 380074 or email: [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk)  
Please refer to these before installing any SRS product.

# Noise coming through floors & ceilings

## Introduction

There are two approaches to the treatment of noise through floors, depending on whether you can work on the surface of the floor above or the ceiling in the room below, and the type of noise that you're suffering from. If you've got access to both the floor and the ceiling, then you can maximise the effect, but don't worry if you haven't.



## Ceiling Treatment

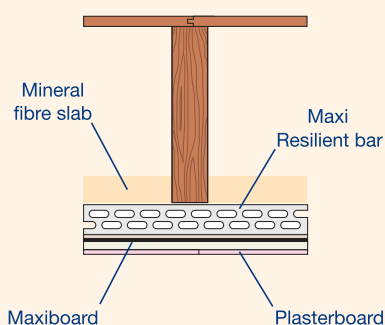
### Products:

Maxiboard  
SRS Gripfix  
SRS Acoustic Sealant  
Maxi Resilient Bars  
100mm Mineral Fibre Slab  
Maxi HP Screws  
70 x 5mm Self Drilling Screws

### Tools:

Tape Measure  
Sealant Gun  
Circular saw, Jigsaw or Hand saw  
Electric Drill/Screwdriver  
Step Ladders  
Trimming Knife

Maxiboard can be used to reduce the noise going up or down through a ceiling, either by replacing the existing ceiling or by being installed below your ceiling, if space permits. This method is particularly effective for airborne noise problems. It will also significantly reduce the level of impact noise.



## Method\*:

Fix Maxi Resilient Bars horizontally across the full width of the existing ceiling or the exposed joists at 400mm centres (300mm if you require an hours fire separation). Place mineral fibre slab between the joists, and screw the Maxiboards to the resilient bars. A bead of SRS Gripfix is placed along each edge of the boards. Where Maxiboard abuts a wall, the shiplap edge should be removed, and a bead of SRS Acoustic Sealant, placed along the cut edge.

The Maxiboard is usually overboarded with a layer of standard 9.5mm wallboard (12.5mm fire rated plasterboard if an hours fire separation is required) and a skim coat of plaster to finish.

## NOTES:

- Great care should be taken to ensure no screw fixings penetrate through the resilient bars, and touch the existing ceiling or joists.

\* Full installation details are available from [www.soundreduction.co.uk](http://www.soundreduction.co.uk), or you can contact us by Tel: 01204 380074 or email: [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk)  
Please refer to these before installing any SRS product.

# Noise coming through floors & ceilings

## Introduction

Our high performance acoustic underlay, Acoustilay, can be used on top of a floor to help reduce the noise of footsteps in the room below. The heavier versions can also help reduce the sound of voices and music. This is the most effective solution for impact noise problems, or if you only have access to the floor. It is very easy to install and replaces the requirement for a conventional carpet underlay.



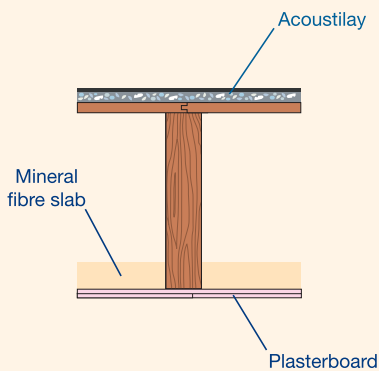
## Floor Treatment

### Products:

Acoustilay 15, 8 or 3  
Acoustilay Perimeter Strips  
Acoustilay MDF  
Acoustilay Adhesive

### Tools:

Circular saw / Jigsaw /  
Trimming Knife  
Tape Measure  
Electric Drill / Screwdriver



## Method\*:

*With Carpet & Gripper:* Acoustilay Perimeter Strips are installed around the perimeter of the room, with the gripper rods installed on top. The Acoustilay tiles are loose laid onto the existing floor, cut and shaped using either a circular saw, jigsaw or trimming knife. There should be installed in a brick pattern. Carpet is placed over the top, as with conventional underlay.

*With Vinyl:* The Acoustilay tiles are bonded to the existing floor with SRS adhesive and a layer of T&G Acoustilay MDF bonded to the top of the Acoustilay before the vinyl is installed.

## NOTES:

- Do not use any mechanical fixings to secure the Acoustilay to the floor.
- If the noise problem is predominately airborne noise, you can replace the Acoustilay with Maxiboard. However, the rigid nature of the board means the impact performance will not be as good as Acoustilay. The impact performance can be improved by laying the Maxiboard onto a resilient layer, such as SRS Impactafoam, which is only 5mm thick.

## Replacing your carpet with engineered timber or laminate floors?

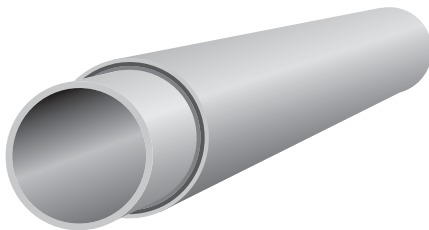
Timber and laminate flooring notoriously increases impact noise. Using SubPrimo between your floorboards and the laminate flooring can help reduce the noise of footsteps.

\* Full installation details are available from [www.soundreduction.co.uk](http://www.soundreduction.co.uk), or you can contact us by tel: 01204 380074 or email: [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk)  
Please refer to these before installing any SRS product.

## Sound Insulation around the house

### Noisy central heating boilers, pumps, pipes & motors

Pumps, pipes, motors and central heating boilers can be noisy. You can reduce the amount of noise that escapes by creating an enclosure around the pump, pipe, motor or boiler and lining it with SoundStop. The foam component of SoundStop provides a level of sound absorption within the enclosure, while the lead core of the product provides resistance to the passage of airborne noise.



Soundstop formed around pipe

An alternative would be to use Maxiboard to line a timber frame, though it would make sense to provide some absorption within the enclosure using our Coustifoam. As with all home appliances, if your boiler appears to be unusually noisy, then you should get it checked by a CORGI registered engineer in case of a fault.

### Noisy washing machines

Washing machines can be isolated from the floor by seating them on a pad of Acoustilay 3 with a 9mm thick board of ply glued on top. The same method can be used for other noisy items, even treadmills!

### Toilets & bathrooms

Ideally pipe runs should be boxed in, for which Maxiboard could be used, and lined internally with an absorber, such as Coustifoam. If this is not possible, you may achieve a level of success from forming the Soundstop product around the offending pipe.

### Closing doors, cupboards & drawers

These can cause noise problems for you and your neighbours. Proprietary solutions are now available from most DIY Supermarket chains.

### Installation

Full installation instructions are available on request and can also be found in our Ultimate Acoustic Solutions guides and on our website [www.soundreduction.co.uk](http://www.soundreduction.co.uk). These should be consulted prior to any installation - the notes in this brochure are only intended as a guide.

### SRS Distributors

SRS uses a small network of specialist distributors who can supply our materials at short notice. They can arrange delivery as well as installation and testing, if required. Please review the UK distributor map on the rear of this brochure for your nearest stockist.

#### Acoustic benefits using SRS products

<b>Acoustilay 8</b> on timber joisted floor	3dB airborne
<b>Acoustilay 15</b> on timber joisted floor	5dB airborne
<b>Acoustilay 3, 8 or 15</b> on timber joisted floor	30dB impact
<b>Acoustilay 3, 8 or 15</b> on concrete floor	42dB impact
<b>SubPrimo</b> under laminate on timber joisted floor	5dB airborne
<b>SubPrimo</b> under laminate on timber joisted floor	10dB impact
<b>Maxiboard</b> on timber joisted floor	9dB airborne
<b>Maxiboard</b> on timber joisted floor	7dB impact
<b>Maxi 30</b> dropped ceiling below timber joisted floor	12dB airborne
<b>Maxi 60</b> dropped ceiling below timber joisted floor	15dB impact
<b>Maxiboard</b> on resilient bars to lightweight block wall	9dB airborne
<b>Maxiboard</b> on resilient bars to one side of standard timber partition	8dB airborne

# sound reduction systems

## Distribution Network

For rapid delivery of Acoustlay & Maxiboard, customers may order from the stockist who cover their areas.

**A** The Spectra Group  
Duchess Estate  
Sievwright Street  
Rutherglen  
Glasgow  
G73 1LL

**Contact:** Bill Smyth, Roy Suttie  
T: 0141 6470831  
F: 0141 6430047  
M: 07860 104405  
E: office@spectragroup.co.uk  
W: www.spectragroup.co.uk

**B** Commercial Connections Ltd  
37 Ballywillin Road  
Crossgar  
Co. Down  
BT30 9LE  
United Kingdom

**Contacts:** James Reynolds,  
Robert Johnston, Gareth Chambers  
**From UK**  
T: 028 4483 1227 F: 028 4483 2747  
**From Eire**  
T: 048 4483 1227 F: 048 4483 2747  
E: info@commercialconnections.co.uk  
W: www.commercialconnections.co.uk

**C** Floorscan Acoustics Ltd (West)  
44 Canal Street, Bootle  
Liverpool  
L20 8QU

**Contact:** John Howell  
T: 0151 9330939  
F: 0151 9339733  
M: 07791 627930  
E: john@floorscan.co.uk  
W: www.floorscan.co.uk

**D** Floorscan Acoustics Ltd (East)  
Unit 5, Tanshelf Industrial Estate  
Colonels Walk, Pontefract  
West Yorkshire  
WF8 4PJ

**Contact:** Alan Randall  
T: 01977 799252  
F: 01977 791056  
M: 07791 563688  
E: alan@floorscan.co.uk  
W: www.floorscan.co.uk

**E** Trim Acoustics Midlands  
Albion Road, West Bromwich  
West Midlands  
B70 8BA

**Contact:** Dennis Gwilliam  
T: 0121 553 4098  
F: 0121 525 9399  
M: 07860 966 860  
E: wb.sales@trimacoustics.co.uk  
W: www.trimacoustics.co.uk

**F** Trim Acoustics Enfield  
Unit 38, Redburn Industrial Estate  
Woodall Road  
Enfield  
Middlesex  
EN3 4LE

**Contact:** Richard Groborz  
T: 020 8443 0099  
F: 020 8443 1919  
M: 07889 177688  
E: sales@trimacoustics.co.uk  
W: www.trimacoustics.co.uk

**G** Trim Acoustics (South)  
Unit 16, Merton Industrial Estate  
Lee Road  
London  
SW19 3HX

**Contact:** John Robinson  
T: 0208 5456710  
F: 0208 5456720  
M: 07855 422840  
E: sales@trimacoustics.co.uk  
W: www.trimacoustics.co.uk

**H** Trim Acoustics South West  
Unit 12a, Lynx Crescent  
Weston-Super-Mare  
BS24 9DJ

**Contact:** Mike Campion  
T: 01934 625107  
F: 01934 625170  
M: 07860 966785  
E: sales@trimacoustics.co.uk  
W: www.trimacoustics.co.uk

**I** Exton Construction Supplies Ltd  
2 Solent Industrial Estate  
Shamblehurst Lane  
Hedge End  
Southampton  
Hampshire  
SO30 2FX

**Contacts:** Gary Martin, Bob May,  
Richard Gray  
T: 01489 788909  
F: 01489 788911  
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W: www.extonconstructionsupplies.co.uk



## sound reduction systems

Manufacturers of Acoustic Insulation Products

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E-mail: info@soundreduction.co.uk · Web: www.soundreduction.co.uk

Site conditions and installation standards vary. SRS cannot take responsibility for the performance of any installed system of which SRS products are only a part, or that have been installed incorrectly. Prior to installation, it is necessary to identify and eliminate possible flanking paths that may compromise the acoustic performance of any SRS product.