



## High performance acoustic flooring



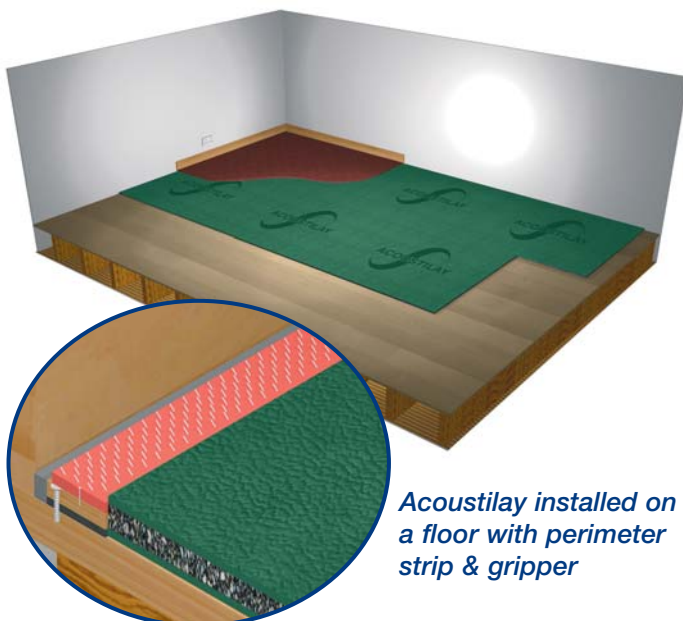
### Acoustilay Flooring Datasheet

- ✓ *Improves airborne sound insulation*
- ✓ *Reduces impact noise*
- ✓ *Simply laid under most floor finishes*
- ✓ *Easily cut and shaped*
- ✓ *Minimises increase in floor level*
- ✓ *Easily and quickly installed*
- ✓ *Can be used to meet Part E of the Building Regulations*
- ✓ *Can allow access to existing floor*
- ✓ *100% Recyclable*
- ✓ *100% Sourced and manufactured in the UK*

Acoustilay can be used above most Lath and Plaster and resiliently fixed, double plasterboarded ceilings to bring the overall floor / ceiling construction up to the standards of Approved Document E (2003)

#### Installation Carpet Finishes (Fitted with gripper)

Acoustilay perimeter strips are nailed or glued around the perimeter of the room with the black barrier layer facing down and the acoustic seal, compressed by two thirds, to the wall or skirting board. Carpet gripper rods are then nailed in place on top of the perimeter strip, raising them to the correct height to



*Acoustilay installed on a floor with perimeter strip & gripper*

take the carpet. Acoustilay panels are tightly butted up to the perimeter detail, and loose laid in brick bond pattern onto the existing floorboards or Maxiboard panels.

Utmost care should be taken to ensure that no gaps occur between the panels. In some situations it may be necessary to bond the Acoustilay to the sub-floor to comply with Building Regulations Approved Document E (2003).

#### Vinyl & Bonded Carpet Finishes

The Acoustilay should be bonded to the sub-floor in brick bond pattern, using the appropriate SRS adhesive. 6mm tongued and grooved Acoustilay MDF is then bonded to the top of the Acoustilay, with appropriate SRS adhesive. Alternatively, two layers of 3mm ply or MDF can be bonded onto the Acoustilay, taking care to avoid coincident joints. The MDF or plywood layer prevents point loading and joint damage in the case of vinyl and wooden floor finishes and aids installation in the case of bonded carpet and carpet tile finishes. The T&G Acoustilay MDF edge detail should be a minimum of 50mm away from any Acoustilay joint and an isolation gap of 5-10mm should be left between the wall and the MDF/Plywood to avoid sound transmission flanking into the structure, the isolation gap should be filled with a flexible sealer.

Please note that timber based products are prone to expansion and contraction, as such SRS recommend that expansion gaps are introduced across the Acoustilay MDF or plywood layers, as well as at the edges, in large applications. Further details on expansion gaps can be found at the Timber Research and Development Association website: [www.trada.co.uk](http://www.trada.co.uk)

The Acoustilay MDF boards need to be bonded to each other using a PVA adhesive on the joint. In areas where the floor covering is returned, a timber fillet, the same thickness as the Acoustilay, should be placed around the perimeter to create a solid edge.

The floor finish should then be installed on top of the Acoustilay MDF or plywood as per the manufacturer's instructions.

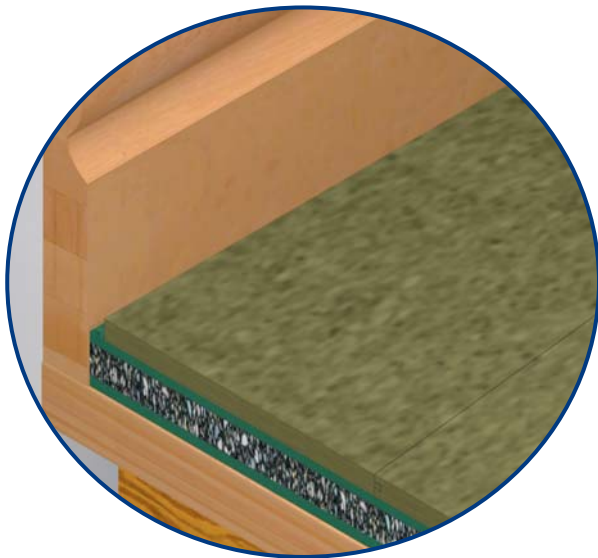
#### Commercial & Educational Applications

In commercial and educational environments, such as offices and schools, it is recommended that the MDF/plywood layer is installed onto the Acoustilay to eliminate the risk of carpet rucking under wheeled furniture and to protect the carpet from heavy traffic wear.

## Timber Floor Finishes

Acoustilay can be used as an underlay to timber floor finishes, to provide impact and airborne sound insulation superior to that achieved using standard underlays. The suitability of the floor finish for use with Acoustilay should be checked with the floor finish manufacturer prior to installation. The resulting floor may feel a little softer than with a standard underlay and there may be a slight movement in the finished product.

If the timber floor manufacturer or installer feels that the movement is excessive, the joints should be supported by installing a layer of 6mm MDF or ply, bonded to the top of the Acoustilay, as per previous instructions in 'Vinyl & Bonded Carpet Finishes' section. In this case the Acoustilay should first be bonded to the floor. This treatment is also normally recommended for commercial or office applications.



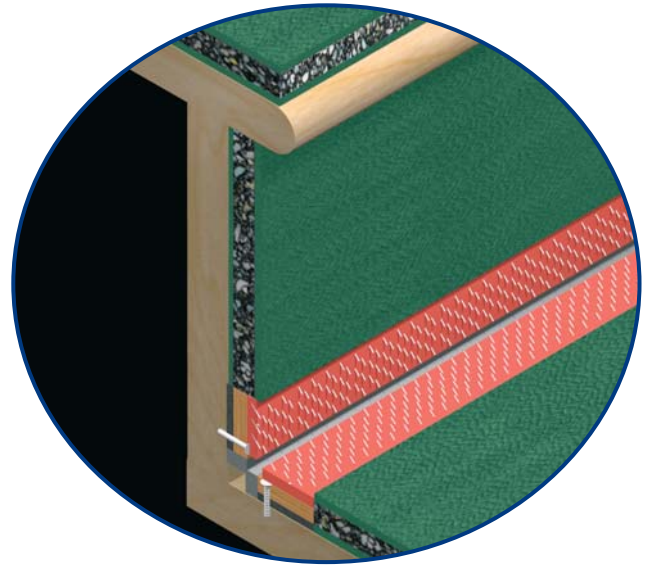
*MDF detail*

As with all floating floor installations, no fixings should be allowed to penetrate the resilient layer and an expansion gap should be allowed around the perimeters and services.

SRS will be happy to provide samples to the floor manufacturer for test purposes. The density of the open cell resilient layer in all the Acoustilay products is 135kg/m<sup>3</sup>.

## Stairs

The Acoustilay panels should first be cut to the appropriate size. Acoustilay should then be bonded to the tread of the stair and, if airborne insulation is required, bonded to the riser using appropriate SRS adhesive. Acoustilay 3 can be formed around the nosing of the stair, as with conventional underlay.



*Stair detail*

The Acoustilay 8 and 15 must be installed with Acoustilay Perimeter Strips. The perimeter strip is nailed to the tread or riser as displayed in the diagram. In areas where a nosing detail is required, a fillet of MDF, the same thickness as the Acoustilay should be installed beneath the nosing to ensure a uniform height.

## Fixtures and Fittings

When installing Acoustilay it is important not to fix directly through the product into the sub-floor due to the risk of sound bridging. When items such as kitchen or bathroom units need to be securely fixed to the floor they should first be mounted and fixed onto an MDF plinth to the same height as the Acoustilay being used.

Ideally the plinth will cover the footprint of the item and the Acoustilay can then be butted up to the MDF, maintaining a consistent floor level and providing secure fixing points. In the case of fitted cupboards and wardrobes, Acoustilay should be used to treat floors inside the cupboard to prevent flanking by airborne sound.



*Kitchen unit detail*

## Building Regulations Part E – Resistance to the Passage of Sound

### Dwelling-houses and flats - performance standards for separating floors, and stairs that have a separating function.

	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum Values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum Values)
<b>Purpose built dwelling-houses or flats</b>		
Floors and Stairs	45	62
<b>Dwelling-houses or flats formed by material change of use</b>		
Floors and Stairs	43	64

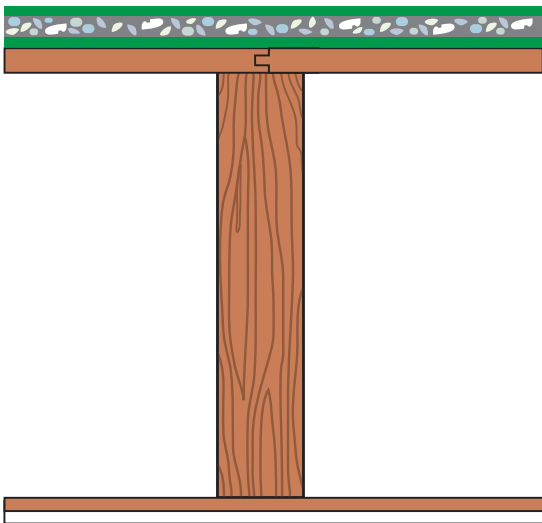
### Rooms for residential purposes - performance standards for separating floors, and stairs that have a separating function.

	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum Values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum Values)
<b>Purpose built rooms for residential purposes</b>		
Floors and Stairs	45	62
<b>Rooms for residential purposes formed by material change of use</b>		
Floors and Stairs	43	64

## Acoustic data for Acoustilay

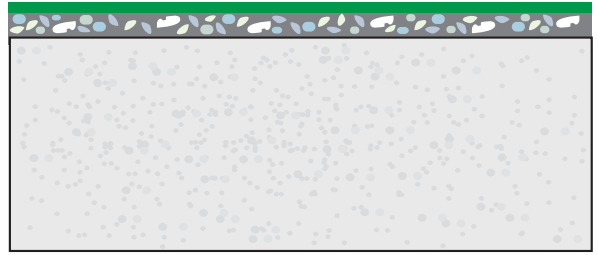
### Acoustilay with a lath & plaster ceiling

	Airborne $D_{nT,w}$ (dB)	Airborne $D_{nT,w} + C_{tr}$ (dB)	Impact $L'_{nT,w}$ (dB)
With Acoustilay 15 - without board	52	45	43
With Acoustilay 15 - with board	–	–	57



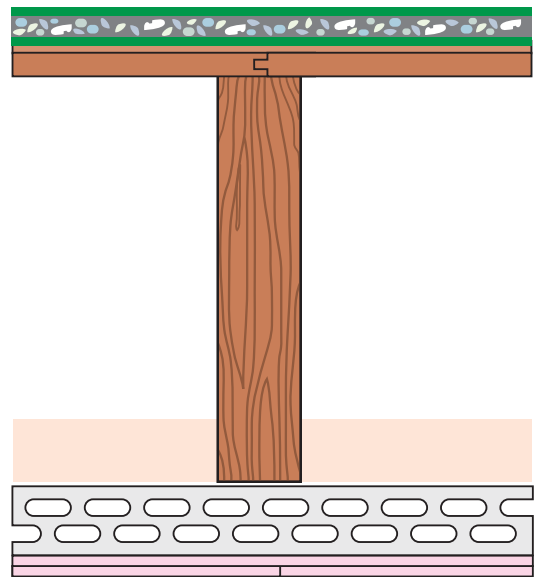
### Acoustilay on a concrete floor

	Impact $\Delta L'_{nT,w}$ (dB)
Acoustilay 3 - without board	42
Acoustilay 15 - without board	42



### Acoustilay above plasterboard on resilient bars

	Airborne $D_{nT,w}$ (dB)	Airborne $D_{nT,w} + C_{tr}$ (dB)	Impact $L'_{nT,w}$ (dB)
Acoustilay 15 - with board	57	51	48



Acoustic tests on Acoustilay (lath and plaster ceiling) carried out independently by Noise Control Services at a site in Darwen on 03/11/03, (conducted prior to the ANC advice to impact test on a rigid board) in accordance with ISO 140 parts 4 and 7. Rated to ISO 717 parts 1 and 2. Test references: NCS 11031/1, NCS 11031/2. Impact test on Acoustilay, covered with a rigid board, carried out by Floorscan Installations & Surveys Ltd on 20/10/06, in accordance with ISO 140 part 7. Rated to ISO 717 part 2. Test Reference 1260.

Acoustic tests (concrete floor) carried out at University of Salford 23/05/96 to ISO 140 Part 8. Report number AT/96/47

Acoustic tests (above plasterboard) carried out by Floorscan Acoustic Installation & Surveys Ltd, 14/09/05 in accordance with ISO 140 parts 4 and 7. Rated to ISO 717 parts 1 and 2. Test reference numbers 195-3, 195-4 (results averaged over two tests).



### Fire properties:

The materials used in the manufacture of Acoustilay are flame retardant. The foam is Combustion Modified and meets Schedule 1 Part 1 of Statutory Instrument 1324 Amendment 1989. The surface barrier layer is self extinguishing to FMVS S302.

### Compression and dynamic loading:

Acoustilay has been tested in according with BS4098:1998 (1999) work of compression BS4052:1987 (1996) Dynamic loading test and meets the requirements of BS5808:1991 (1996) Classified luxury use, domestic/contract where high energy absorption is required.

### Dimensions:

Sheet size = 1200 x 1200mm

Thickness:	Acoustilay 15	15mm
	Acoustilay 8	12mm
	Acoustilay 3	10mm
Weight:	Acoustilay 15	15kg/m <sup>2</sup>
	Acoustilay 8	8kg/m <sup>2</sup>
	Acoustilay 3	4kg/m <sup>2</sup>

### Cutting

By sharp long bladed trimming knife. Score the surface then run through with knife several times to avoid tearing. When shaping use large scissors or tin snips. A circular saw should be used for large numbers of straight cuts.

### Storage

Must be laid flat and kept dry and protected from frost.

### New, Improved Acoustilay Barrier Mat

#### Environmental Sustainability & Human Health Credentials

- UK manufactured - reduces carbon footprint
- Acoustilay Barrier Mat can be manufactured from pre and post industrial waste sources. When it has completed a full service life it can be recycled again
- Free from Vinyl Chloride Monomers, Lead, Bitumen, unrefined aromatic oils and allows halogen free modification
- Uses more sustainable production and disposal methods than PVC
- Safer disposal - Acoustilay Barrier Mat is made from a proprietary polyolefin polymer structure that is one of the least polluting plastics. It therefore poses fewer environmental risks and has a higher potential for mechanical recycling
- When Acoustilay Barrier Mat burns, no hydrogen chloride gas or dioxins are formed
- No PVC means that it does not require any plasticisers restricted by REACH, therefore no migration problems in landfill sites and easier disposal
- Good organoleptic properties
- During manufacture no toxic additives or stabilizers are used which make it easy to recycle and less harmful to the environment

### Patents & Trademarks

'Maxiboard' and 'Acoustilay' are registered trade names of Sound Reduction Systems Ltd. Both are patented products.

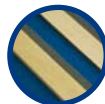
Maxiboard Patent No: GB2375358 Acoustilay Patent No: GB2287086



### Acoustilay Accessories

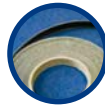
#### Perimeter strip:

1200mm long x 25mm wide  
Acoustilay 8 strip = 6mm thick  
Acoustilay 15 strip = 9mm thick



#### Perimeter sealer:

Rolls 8m x 15mm wide and 3/15mm thick



### Adhesive

#### Release tackifier:

10 litre tub - coverage up to 50m<sup>2</sup> per tub depending on substrate



#### Acrylic adhesive:

5 litre tub - coverage up to 20m<sup>2</sup> per tub depending on substrate



#### Acoustilay MDF:

1200 x 1200 x 6mm



### SRS Ltd Acoustic Insulation Datasheets

Sound Reduction Systems Ltd are experts in all areas of sound insulation. For further information on their range of products and systems for reducing sound transmission in buildings and meeting the acoustic requirements of the Building Regulations Approved Document E, please see the following datasheets, which are easily obtained by calling **01204 380074** or downloading from [www.soundreduction.co.uk](http://www.soundreduction.co.uk).

### Ceilings:

- Maxi 60 Ceiling
- Maxiboard beneath existing plasterboard / lath and plaster
- Maxiboard beneath concrete beam and block
- Maxiboard on a British Gypsum MF ceiling

### Walls:

- Maxi HP Partition System
- Maxiboard installed with new/existing stud
- Maxiboard installed on new/existing masonry

### Floors:

- Maxideck
- SubPrimo

If you are unsure of which product or system you require, please contact our industry leading technical department on Tel: **01204 380074** or email [info@soundreduction.co.uk](mailto:info@soundreduction.co.uk) for free, friendly advice.



sound  
reduction  
systems

Manufacturers of Acoustic Insulation Products

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