ACOUSTILAY: THE PERFECT PRODUCT FOR SOUND INSULATING FLOORS IN DOMESTIC AND COMMERCIAL ENVIRONMENTS

Acoustilay is the most versatile, easy to install acoustic flooring system on the market. It is suitable for use in domestic, commercial and industrial environments and can be laid under a wide range of floor finishes. Acoustilay is manufactured in 3 different grades. All Acoustilay products provide excellent impact noise performance for footsteps, dropped items and moving furniture. The heavier Acoustilay 8 and 15 products are also able to reduce airborne noise such as TV, music and speech when used on timber joisted substrates.

The Acoustilay range can be used to meet Part E of the Building Regulations – Resistance to the passage of sound – in both new build and conversion projects.

KEY BENEFITS:

- Improves acoustic performance of timber and concrete substrates
- Suitable for use beneath a variety of 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
- Recyclable content
- 100% sourced and manufactured in the UK
- Noisy neighbour solution
**INSTALLATION GUIDANCE**

**Hessian-Backed Carpet Finishes, Fitted with Gripper (Domestic only)**

Acoustilay Perimeter Strips are nailed or glued around the perimeter of the room with the barrier layer facing downwards 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 Acoustilay Perimeter Strip.

Acoustilay panels are tightly butted up to the perimeter detail, and loose laid in brick bond pattern onto the floor. Care should be taken to ensure that no gaps occur between the Acoustilay panels and the Acoustilay Perimeter Strips or between the Acoustilay panels themselves. Acoustilay 3 and 8 should be installed with the embossed black barrier mat facing upwards.

**Laminate, Vinyl, Carpet Tile, Bonded Carpet Floor Finishes (Domestic and Commercial)**

When installing Acoustilay beneath laminate flooring, vinyl flooring, carpet tiles, or bonded carpet, it is necessary to install Acoustilay MDF between the Acoustilay and the floor finish. The use of Acoustilay MDF improves stability for the floor finish and prevents problems due to point loading, carpet rucking, and joint damage to the floor finish. In the case of bonded carpet and carpet tile floor finishes the use of Acoustilay MDF will also aid the installation by giving a stable surface to bond to.

Acoustilay should be bonded to the sub-floor in brick bond pattern using SRS Acoustilay Adhesive. Acoustilay 3 and 8 should be installed with the embossed black barrier mat facing upwards. Care should be taken that Acoustilay panels are butted tight against the perimeter wall or skirting and that no gaps occur between the Acoustilay panels themselves. Acoustilay MDF should then be bonded to the top of Acoustilay with SRS Acoustilay Adhesive.

Acoustilay 3 (impact sound insulation) – Acoustilay 3 should be installed with black barrier mat facing upwards. Panels should be cut to size and bonded to tread using SRS Acoustilay Adhesive. Acoustilay 3 can be formed around the nosing of the stair, as with conventional underlay, if required.

Acoustilay 8 and 15 (impact and airborne sound insulation) – Acoustilay 8 should be installed with black barrier mat facing upwards. 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.

Acoustilay panels should be cut to size and bonded to tread and riser using SRS Acoustilay Adhesive. For the nosing detail, a fillet of MDF, the same thickness as the Acoustilay should be installed beneath the nosing to ensure a uniform height.

**Engineered Timber Floor Finishes (Domestic)**

In our experience, there is no issue installing Acoustilay 8 or 15 directly beneath engineered timber floors in domestic installations. The Acoustilay should be installed as described in the ‘Hessian Backed Carpet Finishes, Fitted with Gripper’ section, but without the perimeter strip detail – the Acoustilay should be butted tight up to the wall or skirting. As with all floating floor installations, no fixings should be allowed to penetrate the Acoustilay and an expansion gap should be allowed between the timber floor and the perimeter wall and services. This should be filled with SRS Acoustic Sealant or alternative flexible sealer.

For confirmation on the suitability of any engineered timber floor for use with Acoustilay, please check with the floor finish manufacturer prior to installation. If the floor manufacturer feels that the resilience of the Acoustilay is excessive, or if the installation occurs anywhere other than a domestic environment, SRS recommend that the timber floor should be supported by installing a layer of Acoustilay MDF, bonded to the top of the Acoustilay. In this situation the full instructions of the ‘Laminate, Vinyl, Carpet Tile, Bonded Carpet Floor Finishes’ section should be followed.

If required, SRS will be happy to provide samples to the engineered timber floor manufacturer for test purposes. The density of the open-cell resilient layer in all the Acoustilay products is 135kg/m².

**Stairs (Domestic, Hessian-Backed Carpet Finishes)**

Acoustilay 3 (impact sound insulation) – Acoustilay 3 should be installed with black barrier mat facing upwards. Panels should be cut to size and bonded to tread using SRS Acoustilay Adhesive. Acoustilay 3 can be formed around the nosing of the stair, as with conventional underlay, if required.

Acoustilay 8 and 15 (impact and airborne sound insulation) – Acoustilay 8 should be installed with black barrier mat facing upwards. 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.

Acoustilay panels should be cut to size and bonded to tread and riser using SRS Acoustilay Adhesive. For the nosing detail, a fillet of MDF, the same thickness as the Acoustilay should be installed beneath the nosing to ensure a uniform height.
INSTALLATION GUIDANCE (CONT.)

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 of airborne sound.

Ceramic and Stone Tiles
Acoustilay 3, 8 and 15 are not suitable for use beneath ceramic and stone tiles. For such finishes, please refer to the Acoustilay Tilemat datasheet. Acoustilay Tilemat is a technical, acoustic flooring system that can be tiled onto directly to significantly reduce the transmission of impact noise.

HANDLING
Acoustilay 8 and 15 are heavy products. Please exercise caution when lifting and installing. The HSE can provide information and guidance on the lifting and handling of heavy goods www.hse.gov.uk.

VISIT OUR WEB SITE TO REQUEST YOUR FREE QUOTATION
We offer free, no obligation quotes for all our acoustic products and systems. Please visit www.soundreduction.co.uk/quote to submit your details and we will normally get back to you within 2 working days.

PHYSICAL PROPERTIES AND ACCESSORIES

Fire properties: The surface barrier layer of Acoustilay is self extinguishing to FMVSS 302.

Dimensions: Sheet size - 1200mm x 1200mm

<table>
<thead>
<tr>
<th>ACoustilay</th>
<th>Thickness</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acoustilay 15</td>
<td>15mm</td>
<td>15Kg/m²</td>
</tr>
<tr>
<td>Acoustilay 8</td>
<td>12mm</td>
<td>8Kg/m²</td>
</tr>
<tr>
<td>Acoustilay 3</td>
<td>10mm</td>
<td>3Kg/m²</td>
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</tbody>
</table>

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, kept dry, and protected from frost.

Perimeter Strip - 1200mm long x 25mm wide

<table>
<thead>
<tr>
<th>Perimeter Strip</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acoustilay 8 strip</td>
<td>6mm</td>
</tr>
<tr>
<td>Acoustilay 15 strip</td>
<td>9mm</td>
</tr>
</tbody>
</table>

Perimeter sealer: Rolls 8m x 15mm wide and 3/15mm thick.

Acrylic adhesive: 5 litre tub - coverage up to 20m² per tub depending on substrate.

ACoustilay T&G MDF

| 1200 x 1200 x 6mm |
| 1200 x 600 x 9mm |

ACOUSTIC DATA

Building Regulations Part E - Resistance to the Passage of Sound

<table>
<thead>
<tr>
<th>Dwelling-houses and flats - performance standards for separating floors and stairs that have a separating function.</th>
</tr>
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<tbody>
<tr>
<td>Airborne Sound Insulation DNL + CTr dB (minimum values)</td>
</tr>
<tr>
<td>Purpose built dwelling-houses or flats Floors + Stairs</td>
</tr>
<tr>
<td>Dwelling-houses or flats formed by material change of use Floors + Stairs</td>
</tr>
</tbody>
</table>

| Rooms for residential purposes - performance standards for separating floors, and stairs that have a separating function. |
|---------------------------------------------------------------------------------
| Airborne Sound Insulation DNL + CTr dB (minimum values) | Impact Sound Insulation L'nTw dB (maximum values) |
| Purpose built rooms for residential purposes Floors + Stairs | 45 | 62 |
| Rooms for residential purposes formed by material change of use Floors + Stairs | 43 | 64 |
ACOUSTIC DATA FOR ACOUSTILAY

1. **Acoustilay with a lath and plaster ceiling**
   - **Airborne**
     - **D\text{NT,W} + C_T (DB)**
     - **L\text{NT,W} (DB)**
   - With Acoustilay 15 - without board: 52, 45, 43
   - With Acoustilay 15 - with board: - , - , 57

   **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.

2. **Acoustilay on a concrete floor**
   - **Impact \Delta \text{Lw (DB)}**
   - Acoustilay 3 - without board: 42
   - Acoustilay 15 - without board: 42

   **Concrete floor**
   Carried out at University of Salford 23/05/96 to ISO 140 Part 8. Report number AT/96/47.

3. **Acoustilay above plasterboard on resilient bars**
   - **Airborne**
     - **D\text{NT,W}**
     - **D\text{NT,W} + C_T (DB)**
     - **L\text{NT,W} (DB)**
   - Acoustilay 15 - with board: 57, 51, 48

   **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 195-1, 195-4 (results averaged over two tests).

4. **Acoustilay above Maxi 60 Ceiling**
   - **Airborne**
     - **D\text{NT,W}**
     - **D\text{NT,W} + C_T (DB)**
     - **L\text{NT,W} (DB)**
   - Acoustilay 8 - without board: 58, 52, 30

   **Maxi 60 ceilings**
   Carried out independently by Noise Control Services, 02/06/03. The tests, on Acoustilay 8 above the Maxi 60, were conducted prior to the changes to the ANC PCT scheme that now requires impact sound insulation tests to be conducted on a rigid board, when a proprietary underlay has been installed. The tests were carried out in accordance with ISO 140 parts 4 and 7. Rated to ISO 717 parts 1 and 2. Test reference numbers: 06031/1-4.

**GENERAL NOTES**

In all non-domestic environments, such as offices, hospitals and schools, it is recommended that Acoustilay MDF is installed onto the Acoustilay regardless of the floor finish. Installing Acoustilay MDF, as detailed in the ‘Laminate, Vinyl, Carpet Tile, Bonded Carpet Floor Finishes’, will eliminate the risk of the carpet rucking under wheeled furniture and protect both the floor finish and Acoustilay from heavy traffic wear.

There are a vast number of floor finishes available, and, as such, the installation guidance in this datasheet is given in good faith and to the best of our knowledge. The final decision regarding the compatibility of any floor finish installed onto Acoustilay must remain the responsibility of the flooring contractor/installer. If in any doubt, please seek advice from the floor finish manufacturer.

Good practice applies in all cases. Prior to installation of Acoustilay the floor should be level, clean, and dry. Acoustilay should be allowed to acclimatise to site conditions prior to installation.

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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.