SILENCE DOES NOT STEAL SPACE
Passion, Innovation, Strength.
In acoustic insulation
TECSOUND® is a high-density, highly viscoelastic synthetic soundproofing membrane that offers excellent levels of acoustic insulation in traditional constructions, whilst hardly affecting thickness.

It is highly flexible and easily extendable, which means it can be adapted to any shape or surface, and allows to deal easily with complicated joints and layouts.

TECSOUND® stands out due to its fire resistance and meets Euroclass standard UNE-EN 13501-1:2007 with an exceptional rating: Euroclass B, s2, d0. In other words, it does not spread the flames, is self-extinguishing, it does not drop and does not give off molten particles.

Available in a range of weights, in a self-adhesive format, in specific sizes to match gypsum plasterboards or in combination with absorbent felt, TECSOUND® offers solutions for any kind of building system and also its application in the industrial field.

Its main features and advantages are:

**Highly effective**

TECSOUND®'s high visco-elasticity along with its high density makes it a barrier to sound, greatly reducing the level of noise transmitted.

Combined with absorbent material, such as mineral wools, it creates a mass spring effect which forces sound to travel through materials of different densities, thus reducing energy levels and ensuring high levels of soundproofing.

**Minimum space**

TECSOUND®'s high density makes it possible to add mass to traditional building/construction systems without occupying practically any space. This means that we can obtain high indexes of insulation with minimum thickness.

**Insulation throughout the whole frequency range**

Thanks to its special characteristics TECSOUND® reduces insulation leaks considerably, owing to the resonance frequency and coincidence frequency typical of traditional building systems. This allows for an increase in soundproofing against sounds throughout the whole frequency spectrum.

**Damping effect**

TECSOUND® offers excellent damping for the vibration of metal panels and lightweight materials, thus reducing the noise produced by atmospheric agents such as rain or wind on metal or timbered roofs, or the noise generated by vibration in premises with machinery.

**Easy and rapid application**

All the TECSOUND® products are easily applied and do not require special tools. In addition, products like TECSOUND®SY (self-adhesive with a width equal to that of gypsum boards), offer even faster application. Its 1.2 m. width allows it to have less joints and better installation ratios.

**Adaptable to uneven surfaces**

TECSOUND®’s high elasticity and flexibility makes it totally adaptable to curved surfaces or difficult points, like angles or joints.

**Rot-proof and ageing-resistant**

TECSOUND®’s properties remain unaltered with the ageing. The product does not absorb water or grow mould.
TECSOUND® covers a wide range of applications for acoustic insulation for both in terms of building such as in applications in the industrial sector.

**In construction**

- Acoustic insulation in vertical walls made of gypsum plasterboard or fibre plasterboards, as well as ceramic brick, concrete blocks etc.
- Acoustic insulation of ceilings and flooring.
- Acoustic insulation of impact noise and vibrations in parquet, wooden, and floating floors as well as under mortar screed.
- Acoustic insulation of airborne noise in metal and timbered roofs.
- Acoustic insulation of rain-fall noise on metal and timbered roofs.
- Acoustic insulation of drainpipes and vents.

**In industry**

- Acoustic insulation of vibrations of steel or aluminium metal plates,... for containing engines, compressors, air conditioning units…
- Soundproofing of gutter pipes…
- Dampens vibrations in cars, buses, tractors, etc…
- Acoustic insulation of prefabricated panels and moveable partition walls.
- Acoustic insulation of doors, shutter box, etc.
Acoustic insulation

Product range

TECSOUND®

TECSOUND® SY

TECSOUND® FT

TECSOUND® 2FT

TECSOUND® FT AL

TECSOUND® S BAND
**Tecsound®**

TECSOUND® is a high-density, polymer-based, asphalt-free synthetic soundproofing membrane, which is viscoelastic and highly adaptable, and provides good acoustic insulation in the different construction elements without increasing thickness.

**Applications**

- Airborne noise insulation in vertical surfaces with low surface mass (lightweight partitions or panels in various materials).
- Airborne noise insulation in ceilings and roofs.
- Reduction of impact noise level in all types of frameworks, in formation of floating floors.
- Damping of impact noise produced by atmospheric agents in metal roofs.
- In combination with sound-absorbent materials, it results in products with high acoustic performance characteristics.
- Its applications in the industrial sector range from soundproofing booths to insulation of machine rooms, drainpipes, acoustic damping of metal sheets, etc.

**Properties**

- Acoustic insulation throughout the frequency range.
- Easy to handle and cut.
- High acoustic insulation especially combined with flexion-elastic elements (gypsum plasterboard, carrier board, etc.).
- Flexible and adaptable to uneven surfaces.
- High elongation capacity.
- Fire rating: B, s2, d0. In other words, it does not contribute to the fire (it does not spread the flames, it does not drop and it does not give off molten particles).
- Hot and cold-resistant.
- Excellent ageing-resistance.
- Rot-proof.
- Admits all habitual types of construction supports (gypsum plasterboard, metal, carrier board, plastics).

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**Synthetic soundproofing membrane**

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250035</td>
<td>TECSOUND® 35</td>
<td>3.5</td>
<td>1.75</td>
<td>8 m x 1.22 m (r)</td>
</tr>
<tr>
<td>1250051</td>
<td>TECSOUND® 50</td>
<td>5</td>
<td>2.5</td>
<td>6 m x 1.22 m (r)</td>
</tr>
<tr>
<td>12500323</td>
<td>TECSOUND® 70</td>
<td>7</td>
<td>3.5</td>
<td>5 m x 1.22 m (r)</td>
</tr>
<tr>
<td>12500314</td>
<td>TECSOUND® 100</td>
<td>10</td>
<td>5</td>
<td>4 m x 1.2 m (r)</td>
</tr>
</tbody>
</table>

---

**Tecsound® SY**

TECSOUND® SY is a synthetic soundproofing membrane, which has a built-in self-adhesive layer enabling it to be applied straight onto most surfaces.

Dimensions designed specially for application on gypsum plasterboards.

**Applications**

- Specially for gypsum plasterboards applications.
- Airborne noise insulation in vertical surfaces with low surface mass (lightweight partitions or panels in various materials).
- Airborne noise insulation in ceilings.
- In combination with sound-absorbent materials, it results in products with high acoustic performance characteristics.

**Self-adhesive, synthetic soundproofing membrane**

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12500135</td>
<td>TECSOUND® SY 35</td>
<td>3.5</td>
<td>1.75</td>
<td>8.05 m x 1.22 m (r)</td>
</tr>
<tr>
<td>12500031</td>
<td>TECSOUND® SY 50</td>
<td>5</td>
<td>2.5</td>
<td>6.05 m x 1.22 m (r)</td>
</tr>
<tr>
<td>19640100</td>
<td>TECSOUND® SY 70</td>
<td>7</td>
<td>3.5</td>
<td>5.05 m x 1.22 m (r)</td>
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<tr>
<td>12530110</td>
<td>TECSOUND® SY 100</td>
<td>10</td>
<td>5</td>
<td>4 m x 1.20 m (r)</td>
</tr>
</tbody>
</table>
## Tecsound® S Band

TECSOUND® S Band is a synthetic TECSOUND® membrane soundproofing tape, with a built-in self-adhesive layer enabling it to be applied straight onto metals structures subject to vibrations.

### Self-adhesive, synthetic soundproofing tape

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12530050</td>
<td>TECSOUND® S50 BAND 50</td>
<td>5</td>
<td>2.5</td>
<td>6 m x 0.05 m (r)</td>
</tr>
</tbody>
</table>

### Applications

- Damping of vibrations of the metal structure in gypsum plasterboards partitions.

## Tecsound® FT

TECSOUND® FT is a soundproofing complex comprising a porous felt and the polymer-based TECSOUND® synthetic membrane, asphalt-free, both formed so that they provide high acoustic insulation in the different construction elements: walls, ceilings, roofs, etc.

- High acoustic insulation, combined with all types of building systems.
- Easy handling and application.
- Joins easy to execute.
- Excellent ageing-resistance.
- Rot-proof.
- Hot and cold-resistant.

### Applications

- Soundproofing of horizontal (ceilings) and vertical enclosures, where high acoustic insulation against transmission of airborne noises is required.
- Airborne noise insulation in vertical surfaces.
- Airborne noise insulation in ceilings.
- Reduction of impact noise level in all types of floors and crossbeams.
- Its main applications include new construction and refurbishment work, industries, cinemas, theatres, sports complexes, night clubs, bars, restaurants, hotels, shopping centres, etc.

### Soundproofing complex comprising the Tecsound® membrane

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
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</thead>
<tbody>
<tr>
<td>12502205</td>
<td>TECSOUND® FT 40</td>
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<td>12</td>
<td>6 m x 1.20 m (r)</td>
</tr>
<tr>
<td>12502047</td>
<td>TECSOUND® FT 55</td>
<td>5.6</td>
<td>12.5</td>
<td>5.50 m x 1.20 m (r)</td>
</tr>
<tr>
<td>12502176</td>
<td>TECSOUND® FT 75</td>
<td>7.6</td>
<td>14</td>
<td>5.50 m x 1.20 m (r)</td>
</tr>
</tbody>
</table>

## Tecsound® 2FT

TECSOUND® 2FT is a soundproofing complex comprising two porous felts with the polymer-based TECSOUND® synthetic membrane, asphalt-free, sandwiched in between, so that they provide high acoustic insulation in the different construction elements: walls, ceilings, roofs, etc.

- High acoustic insulation, combined with all types of construction/building systems.
- Easy handling and application.
- Joins easy to execute.
- Excellent ageing-resistance.
- Rot-proof.
- Hot and cold-resistant.

### Applications

- Soundproofing of horizontal (ceilings) and vertical enclosures, where high acoustic insulation against transmission of airborne noises is required.
- Specially recommended in partition walls.
- Airborne noise insulation in vertical surfaces.
- Airborne noise insulation in ceilings.
- Its main applications include new construction and refurbishment work, industries, cinemas, theatres, sports complexes, night clubs, bars, restaurants, hotels, shopping centres, etc.

### Soundproofing complex comprising the Tecsound® membrane between two porous felts

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12502380</td>
<td>TECSOUND® 2FT 80</td>
<td>8.2</td>
<td>24</td>
<td>5.50 x 1.20 m (r)</td>
</tr>
</tbody>
</table>
TECSOUND® FT 55 AL is a soundproofing complex comprising a porous felt and the TECSOUND® synthetic membrane, coated on the outside with a reinforced aluminium foil.

- Increases acoustic insulation of the pipe it is applied to, its effect based on an absorbent element and a highly elastic, high-density insulating membrane.

### Soundproofing complex comprising the Tecsound® membrane finished with aluminium and porous felt

<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Weight Kg/m²</th>
<th>Thickness mm</th>
<th>Presentation</th>
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</thead>
<tbody>
<tr>
<td>12502009</td>
<td><strong>TECSOUND® FT 55 AL</strong></td>
<td>5.5</td>
<td>12.5</td>
<td>5.50 m x 1.20 m (r)</td>
</tr>
</tbody>
</table>

### Solutions guide on acoustic insulation

<table>
<thead>
<tr>
<th>SUPPORT</th>
<th>USE</th>
<th>TAPE</th>
<th>VERTICAL SURFACE</th>
<th>HORIZONTAL SURFACE</th>
<th>DESIGNATION</th>
</tr>
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<tbody>
<tr>
<td>GYPSUM PLASTERBOARDS</td>
<td>INTERIOR PARTITIONS</td>
<td><strong>TECSOUND S BAND 50</strong></td>
<td><strong>TECSOUND SY 70</strong></td>
<td><strong>TEXSILEN PLUS</strong></td>
<td>PI-1</td>
</tr>
<tr>
<td>CERAMIC BRICK</td>
<td>PARTITION WALLS</td>
<td><strong>TECSOUND S BAND 50</strong></td>
<td><strong>TECSOUND 2FT</strong></td>
<td><strong>TEXSILEN PLUS</strong></td>
<td>PM-2</td>
</tr>
<tr>
<td>GYPSUM PLASTERBOARDS</td>
<td>CEILING AND ROOFS</td>
<td><strong>TECSOUND S BAND 50</strong></td>
<td><strong>TECSOUND SY 50</strong></td>
<td><strong>TECSOUND FT 75 / TECSOUND SY 70</strong></td>
<td>FT-2</td>
</tr>
<tr>
<td>CONCRETE FRAMEWORK</td>
<td></td>
<td><strong>TECSOUND S BAND 50</strong></td>
<td><strong>TECSOUND SY 50</strong></td>
<td><strong>TECSOUND 70 / TEXFON</strong></td>
<td>S-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TECSOUND S BAND 50</strong></td>
<td><strong>TECSOUND SY 50</strong></td>
<td><strong>TECSOUND 70 / TEXFON</strong></td>
<td>S-3</td>
</tr>
<tr>
<td>DRAINPIPES</td>
<td></td>
<td><strong>TECSOUND FT 55 AL</strong></td>
<td><strong>TECSOUND FT 55 AL</strong></td>
<td><strong>TECSOUND 100</strong></td>
<td>BJ-1</td>
</tr>
<tr>
<td>METAL DECK PROFILE</td>
<td>DECK ROOFS</td>
<td><strong>TECSOUND FT 100</strong></td>
<td><strong>TECSOUND FT 100</strong></td>
<td><strong>TECSOUND FT 100</strong></td>
<td>NT-2-10</td>
</tr>
<tr>
<td>CERAMIC BRICK</td>
<td>PARTITION WALLS</td>
<td><strong>TECSOUND FT</strong></td>
<td><strong>TECSOUND FT</strong></td>
<td><strong>TECSOUND FT</strong></td>
<td>TR-3</td>
</tr>
</tbody>
</table>
Acoustic insulation

For this reason, a few building solutions are given with TECSOUND® products of different types and using different applications, with the corresponding airborne noise insulation index $R_w$ (dB) or impact noise insulation index $\Delta L_w$ (dB).

Even so, it is worth describing the material in terms of acoustics, therefore, acoustic insulation tests have been carried out on these products as shown in the graphs attached.

Acoustic insulation graph TECSOUND® 50

![Acoustic insulation graph TECSOUND® 50](image)

- **Applus (Spain)** n° 4.042.669

<table>
<thead>
<tr>
<th>Frec. (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R$ (dB)</td>
<td>9.4</td>
<td>16.4</td>
<td>21.5</td>
<td>25.5</td>
<td>29.7</td>
<td>34.3</td>
</tr>
</tbody>
</table>

Acoustic insulation graph TECSOUND® 70

![Acoustic insulation graph TECSOUND® 70](image)

- **Applus (Spain)** n° 40.402.666

<table>
<thead>
<tr>
<th>Frec. (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R$ (dB)</td>
<td>11.7</td>
<td>20.1</td>
<td>23.6</td>
<td>28.7</td>
<td>33.0</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Acoustic insulation graph TECSOUND® FT 75

![Acoustic insulation graph TECSOUND® FT 75](image)

- **Applus (Spain)** n° 4.042.668

<table>
<thead>
<tr>
<th>Frec. (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R$ (dB)</td>
<td>13.1</td>
<td>20.7</td>
<td>22.4</td>
<td>27.9</td>
<td>34.3</td>
<td>40.6</td>
</tr>
</tbody>
</table>

Impact noise insulation graph TECSOUND® FT 75

![Impact noise insulation graph TECSOUND® FT 75](image)

- **LGAI (Spain)** n° 23.020.014

<table>
<thead>
<tr>
<th>Frec. (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\Delta L_w$ (dB)</td>
<td>-4.1</td>
<td>9.7</td>
<td>21.0</td>
<td>27.0</td>
<td>33.2</td>
<td>39.7</td>
</tr>
</tbody>
</table>

The acoustic insulation to obtain will always depend on the building system employed.
**Acoustic insulation**

**PI-1 Interior partitions**

1. 13 mm gypsum plasterboard
2. TECSOUND® S BAND 50
3. TECSOUND® SY 70
4. Mineral wool
   (thickness: 50 mm; density: 15 kg/m³)
5. Flooring
6. Reinforced mortar screed
7. TExSILEN PLUS 5 mm
8. Support

**PM-5 Vertical partitions, partition walls**

1. 13 mm gypsum plasterboard
2. TECSOUND® S BAND 50
3. TECSOUND® SY 50
4. 13 mm gypsum plasterboard
5. Mineral wool
   (thickness: 40 mm; density: 30 kg/m³)
6. Flooring
7. Reinforced mortar screed
8. TExSILEN PLUS 5 mm
9. Support

**TR-3 Partition walls – Refurbishment work**

1. Existing partition wall
2. TECSOUND® FT
3. Omega profile
4. Plasterboard

**FT-2 Façades and ceilings**

1. Support
2. Plaster coast
3. TECSOUND® FT 75
4. Air cavity (thickness: 200 mm)
5. Dampers
6. TECSOUND® SY 70
7. TECSOUND® S BAND 50
8. 13 mm gypsum plasterboard
9. Brick wall (thickness: 13 cm)
10. Mineral wool
    (thickness: 50 mm; density: 70 Kg/m³)
11. Mineral wool
    (thickness: 50 mm; density: 40 Kg/m³)

**PM-2 Partition walls**

1. Plaster coat (thickness: 1.5 cm)
2. Brick wall (thickness: 7 cm)
3. TECSOUND® 2FT
4. Flooring
5. Reinforced mortar screed
6. TExSILEN PLUS
7. Support
Acoustic insulation

**BJ-1** Drainpipes and vents

1. Drainpipe
2. TEC SOUND® FT 55 AL
3. Plastic flange
4. Aluminium tape

**NT-2-0a** Deck Roof

1. Metal deck profile (thickness: 0.7 mm)
2. TEC SOUND® 100
3. AISLADECK BV
4. Fixings
5. MOPLY FV 3 kg
6. MOPLY FP 4 Kg Mineral

**S-3** Floors

1. Support
2. TEXFON
3. TEC SOUND® 70
4. Parquet

**NT-2-10** Standing seam Roof

1. Metal deck profile (thickness: 0.7 mm)
2. TEC SOUND® 100
3. Rock wool (thickness: 100 mm; density: 150-220 Kg/m³)
4. Rock wool (30 Kg/m²)
5. Aluminium standing seam

**S-1** Floors

1. Support
2. TEXFON
3. Reinforced mortar screed
4. Flooring

For further information and building systems see our website: [www.dctech.com.au](http://www.dctech.com.au)
Acoustic insulation

Reference jobs

- Congress Hall Seville
  - Arch. Guillermo Vázquez Consuegra
- Palasport Olímpic Torino (Italy)
  - Arch. Arata Isozaki
- City of Culture Santiago de Compostela
  - Arch. Peter Einsman
- Caja Mágica Madrid
  - Arch. Dominique Perrault
- Olympic Media Centre London
  - Arch. Allies and Morrison
- CCIB Convention Centre Barcelona
  - Arch. Herzog & De Mouron
- Exhibition centre Pavilion 0 La Fira Barcelona
  - Arch. Toyo Ito
- IKEA Tempe Sydney (Australia)

T1 Barcelona Airport
- Arch. Ricardo Bofill

The Hydro Glasgow (Scotland)
- Arch. Foster and Partners

02 Arena London (UK)
- Arch. Richard Rogers
Acoustic insulation

- The Copper Box Arena London (UK)
- Prime Minister Offices Brunei (Brunei)
- Manila Airport Philippines
- Congress Hall Port Aventura
- Hotel Far West Port Aventura
- Hotel ME Madrid Reina Victoria Madrid
- Hotel NH Constanza Barcelona
- Tarraco Arena Plaza Tarragona
- Production Centre Vicinay Cadenas Sestao
- Technogym Production Centre Italy
- Congress Hall Oran (Argelia)
- Philharmonic Concert Hall Szczecin (Poland)

Niemeyer Avilés Centre
– Arch. Oscar Niemeyer
about dct

Dynamic Composite Technologies, or Dynamic Composite Technologies, or as we are now known DCTech, has been serving the Australian building industry with an extensive portfolio of technically advanced thermal insulation, geotextile membranes, rainscreen cladding brackets and fibreglass reinforced plastic wall and ceiling liner panels - which have been tried and tested to Australian building codes and standards.

This diverse portfolio provides DCTech with the ability to consider the building envelope holistically and hence develop a ‘total system solutions’ for a wide range of building applications. DCTech total system solutions incorporate high-performance building materials and innovative solutions which are designed to meet the continuously evolving requirements of the Australian building industry.

DCTech total system solutions address the risk of interstitial condensation, affords BCA, NCC and Greenstar compliant thermal efficiency and optimum acoustic and fire performance.

Ensure you specify the right system for the right application, look for the orange ‘Powered by DCTech’ stamp of approval.