

# TECSOUND<sup>®</sup>

*SILENCE DOES NOT  
STEAL SPACE*



# Passion Innovation Strength

「 Passion, Innovation, Strength.  
In acoustic insulation





# TECSOUND®

... because silence does not steal space

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.



## Applications

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.

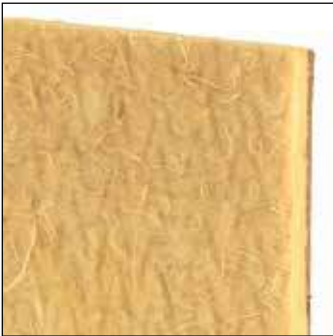
## Product range



TECSOUND®



TECSOUND® SY



TECSOUND® FT



TECSOUND® 2FT



TECSOUND® FT AL



TECSOUND® S BAND



TECSOUND

## Tecsound®

TECSOUND® is a high-density, polymer-based, asphalt-free synthetic soundproofing membrane, which is visco-elastic 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 metals 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-pliable 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).

### Synthetic soundproofing membrane

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12500035	<b>TECSOUND® 35</b>	3.5	1.75	8 m x 1.22 m (r)
12500051	<b>TECSOUND® 50</b>	5	2.5	6 m x 1.22 m (r)
12500323	<b>TECSOUND® 70</b>	7	3.5	5 m x 1.22 m (r)
12500314	<b>TECSOUND® 100</b>	10	5	4 m x 1.2 m (r)



## 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

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12500135	<b>TECSOUND® SY 35</b>	3.5	1.75	8.05 m x 1.22 m (r)
12500031	<b>TECSOUND® SY 50</b>	5	2.5	6.05 m x 1.22 m (r)
19640100	<b>TECSOUND® SY 70</b>	7	3.5	5.05 m x 1.22 m (r)
12530110	<b>TECSOUND® SY 100</b>	10	5	4 m x 1.20 m (r)



## 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.

### Applications

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

### Self-adhesive, synthetic soundproofing tape

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12530050	TECSOUND® S50 BAND 50	5	2.5	6 m x 0,05 m (r)



## 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

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12502205	TECSOUND® FT 40	4.1	12	6 m x 1.20 m (r)
12502047	TECSOUND® FT 55	5.6	12.5	5.50 m x 1.20 m (r)
12502176	TECSOUND® FT 75	7.6	14	5.50 m x 1.20 m (r)



## 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

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12502380	TECSOUND® 2FT 80	8.2	24	5.50 x 1.20 m (r)



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.

- Acoustic insulation of drainpipes.
- Acoustic insulation of air conditioning vents.
- Acoustic insulation of industrial pipes.
- In combination with sound-absorbent materials, it results in products with high acoustic performance characteristics.

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

Code	Product	Weight Kg/m <sup>2</sup>	Thickness mm	Presentation
12502009	TECSOUND® FT 55 AL	5.5	12.5	5.50 m x 1.20 m (r)

## Acoustic insulation

### Solutions guide on acoustic insulation

	SUPPORT	USE	TAPE	VERTICAL SURFACE	HORIZONTAL SURFACE	DESIGNATION	
NEW CONSTRUCTION	<b>GYPSUM PLASTERBOARDS</b>	INTERIOR PARTITIONS	TECSOUND S BAND 50	TECSOUND SY 70	TEXSILEN PLUS	<b>PI-1</b>	
	<b>CERAMIC BRICK</b>	PARTITION WALLS	-	TECSOUND 2FT	TEXSILEN PLUS	<b>PM-2</b>	
	<b>GYPSUM PLASTERBOARDS</b>		TECSOUND S BAND 50	TECSOUND SY 50	TEXSILEN PLUS	<b>PM-5</b>	
	<b>CONCRETE FRAMEWORK</b>	CEILING AND ROOFS	TECSOUND S BAND 50	TECSOUND SY 50	TECSOUND FT 75 / TECSOUND SY 70"	<b>FT-2</b>	
			-	-	TEXFON	<b>S-1</b>	
		-	-	TECSOUND 70 / TEXFON	<b>S-3</b>		
	<b>DRAINPIPES</b>			-	TECSOUND FT 55 AL	-	<b>BJ-1</b>
	<b>METAL DECK PROFILE</b>	DECK ROOFS	-	-	TECSOUND 100	<b>NT-2-0a</b>	
-			-	TECSOUND 100	<b>NT-2-10</b>		
REFURBISHMENT	<b>CERAMIC BRICK</b>	PARTITION WALLS	-	TECSOUND FT	-	<b>TR-3</b>	

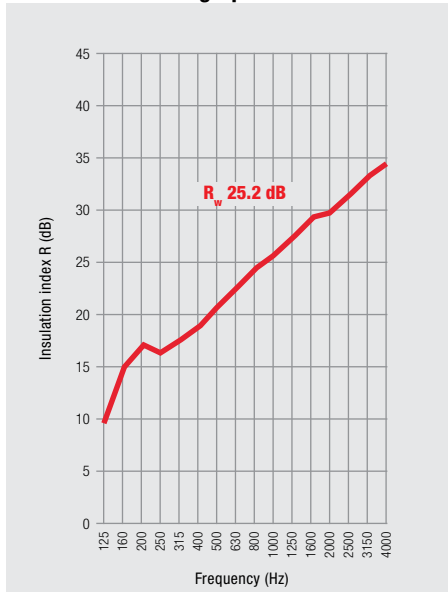


The acoustic insulation to obtain will always depend on the building system employed.

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:

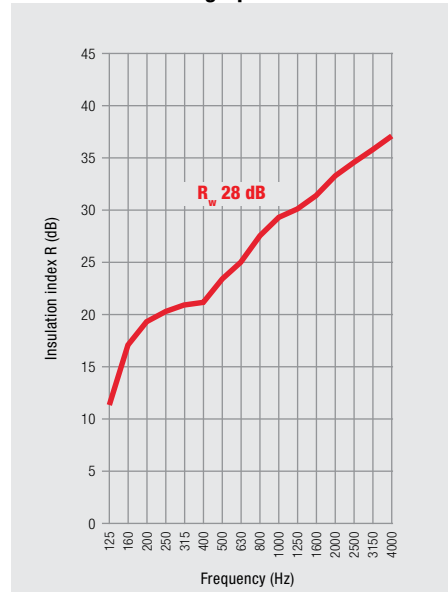
**Acoustic insulation graph TECSOUND® 50**



— Applus (Spain) nº 4.042.669

Frec. (Hz)	125	250	500	1000	2000	4000
R (dB)	9,4	16,4	21,5	25,5	29,7	34,3

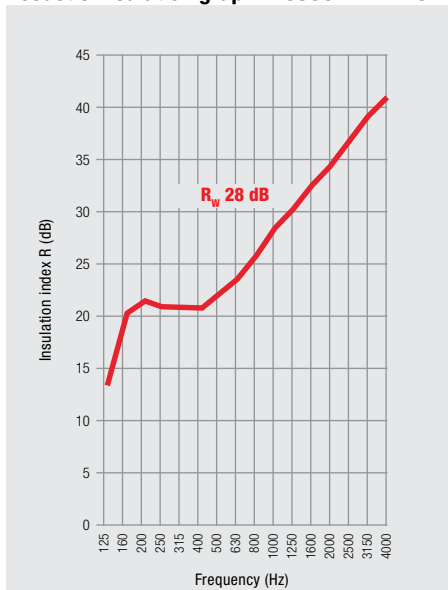
**Acoustic insulation graph TECSOUND® 70**



— Applus (Spain) nº 40.042.666

Frec. (Hz)	125	250	500	1000	2000	4000
R (dB)	11,7	20,1	23,6	28,7	33,0	36,8

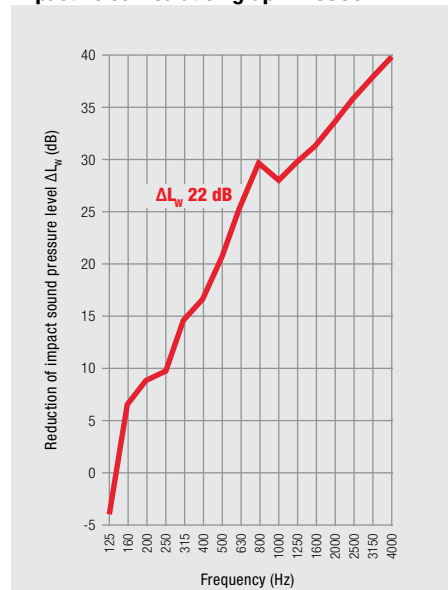
**Acoustic insulation graph TECSOUND® FT 75**



— Applus (Spain) nº 4.042.668

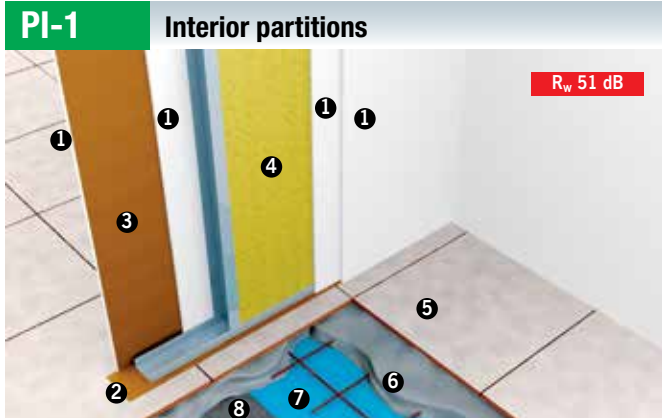
Frec. (Hz)	125	250	500	1000	2000	4000
R (dB)	13,1	20,7	22,4	27,9	34,3	40,6

**Impact noise insulation graph TECSOUND® FT 75**

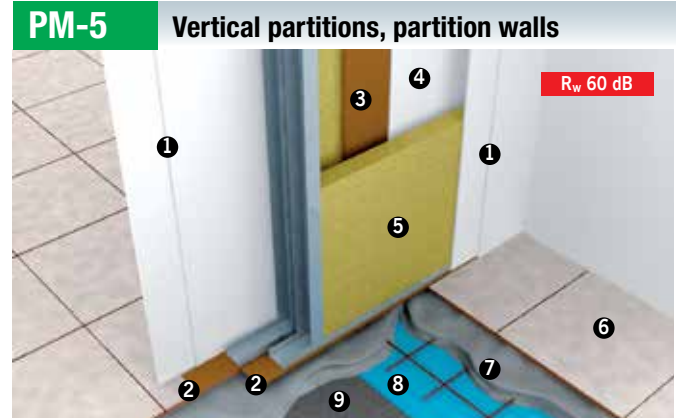


— LGAI (Spain) nº 23.020.014

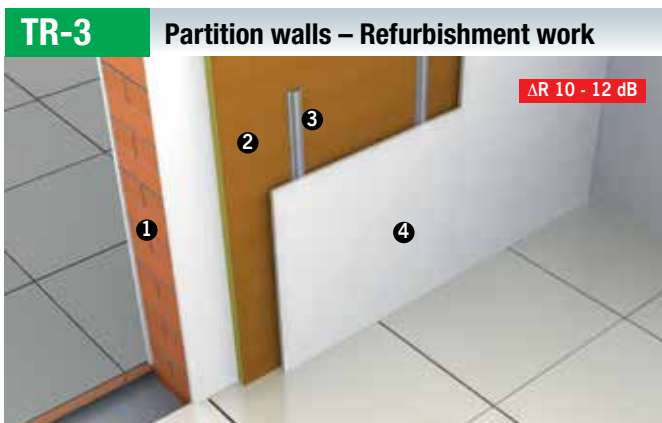
Frec. (Hz)	125	250	500	1000	2000	4000
ΔL_w (dB)	-4,1	9,7	21,0	27,0	33,2	39,7



- |   |                             |
|---|-----------------------------|
| 1. 13 mm gypsum plasterboard  | 5. Flooring                 |
| 2. TECSOUND® S BAND 50  | 6. Reinforced mortar screed |
| 3. TECSOUND® SY 70  | 7. TEXSILEN PLUS 5 mm       |
| 4. Mineral wool<br>(thickness: 50 mm; density: 15 kg/m <sup>3</sup> ) | 8. Support                  |



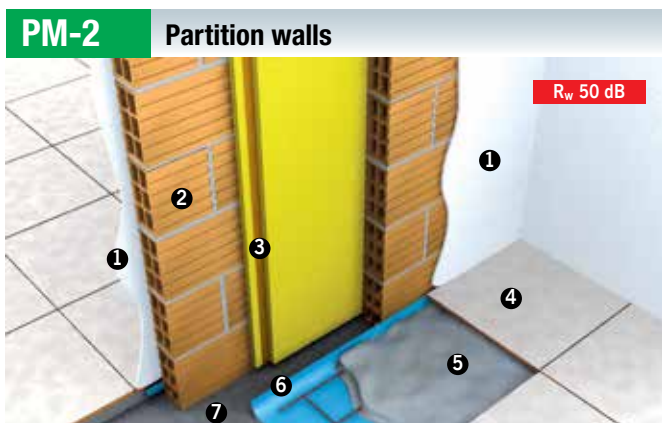
- |   |                             |
|---|-----------------------------|
| 1. 13 mm gypsum plasterboard  | 6. Flooring                 |
| 2. TECSOUND® S BAND 50  | 7. Reinforced mortar screed |
| 3. TECSOUND® SY 50  | 8. TEXSILEN PLUS 5 mm       |
| 4. 13 mm gypsum plasterboard  | 9. Support                  |
| 5. Mineral wool<br>(thickness: 40 mm; density: 30 kg/m <sup>3</sup> ) |                             |



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

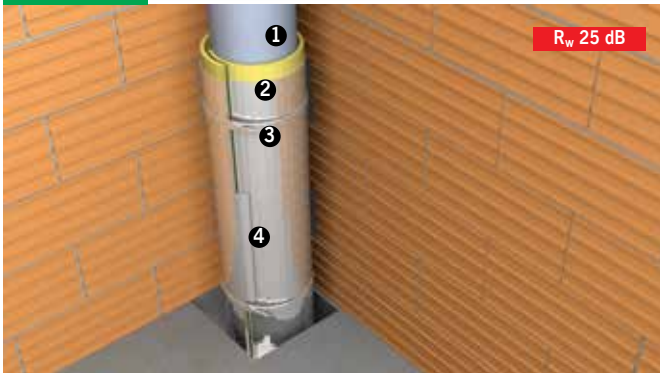


- |                                   |  |
|-----------------------------------|--|
| 1. Support                        | 7. TECSOUND® S BAND 50   |
| 2. Plaster coast                  | 8. 13 mm gypsum plasterboard   |
| 3. TECSOUND® FT 75                | 9. Brick wall (thickness: 13 cm)          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



- |                                      |                             |
|--------------------------------------|-----------------------------|
| 1. Plaster coast (thickness: 1,5 cm) | 5. Reinforced mortar screed |
| 2. Brick wall (thickness: 7 cm)      | 6. TEXSILEN PLUS            |
| 3. TECSOUND® 2FT                     | 7. Support                  |
| 4. Flooring                          |                             |

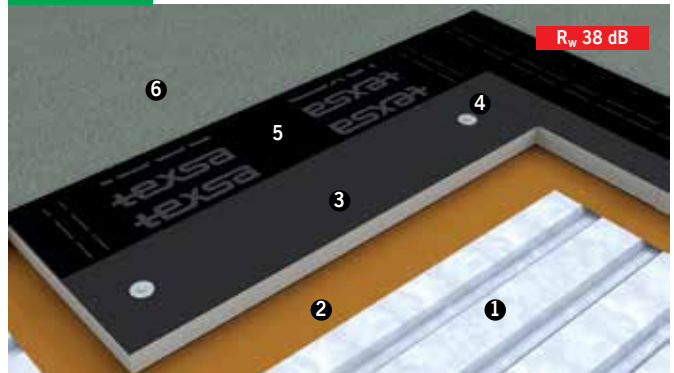
## BJ-1 Drainpipes and vents



$R_w$  25 dB

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

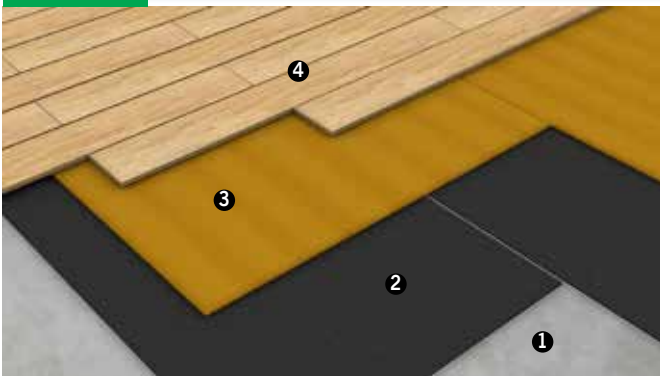
## NT-2-0a Deck Roof



$R_w$  38 dB

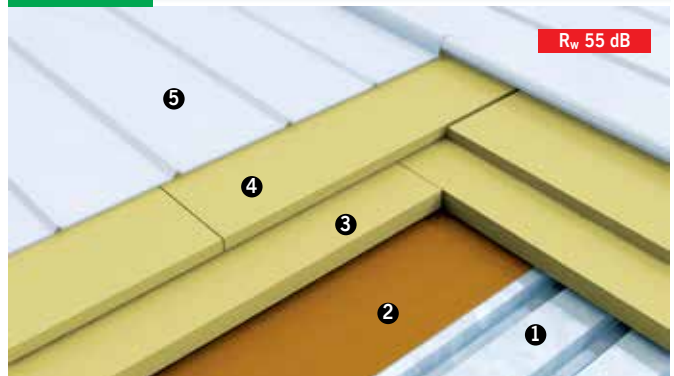
1. Metal deck profile (thickness: 0,7 mm)
2. TECSOUND® 100
3. AISLADECK BV
4. Fixings
5. MOPLY FV 3 kg
6. MOPLY FP 4 Kg Mineral

## S-3 Floors



1. Support
2. TEXFON
3. TECSOUND® 70
4. Parquet

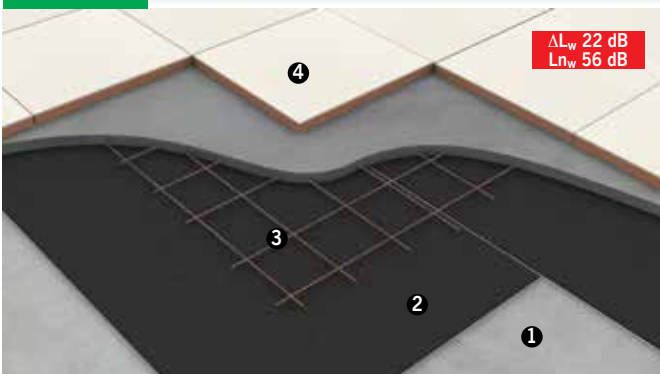
## NT-2-10 Standing seam Roof



$R_w$  55 dB

1. Metal deck profile (thickness: 0,7 mm)
2. TECSOUND® 100
3. Rock wool (thickness: 100 mm; density: 150-220 Kg/m³)
4. Rock wool (30 Kg/m³)
5. Aluminium standing seam

## S-1 Floors



$\Delta L_w$  22 dB  
 $L_{n,w}$  56 dB

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



## 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 Mourn
- **Exhibition centre Pavillion 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



**O2 Arena London (UK)**  
– Arch. Richard Rogers

- 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.



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