

Silence does not steal space



**Soundproofing
Solutions** for Metal
Deck Roofs

PRODUCT CATALOGUE



Passion, Innovation & Strength
in Acoustics.





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 up to TECSOUND® SY 70

Available in a range of weights, also in self-adhesive, 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.

Highly effective

TECSOUND®'s high visco-elasticity 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, acting on 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.

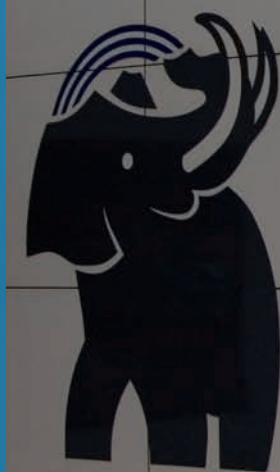
Rot-proof and ageing-resistant

TECSOUND®'s properties remain unaltered with the ageing. The product does not absorb water or grow mould.



SOPREMA GROUP

A HISTORY OF KNOW-HOW





THE TRUSTED PARTNER

An independent family group since its creation in 1908, **SOPREMA** asserts itself as one of the very first global companies in the field waterproofing, but also as a roofing specialist, acoustic underlayment and insulation. The **SOPREMA** Group has developed and diversified around the world by integrating over the years activities complementary to his original job. Become world leader sealing solutions, the Group is today a key player of the building sector.

HIGH PERFORMANCE CUSTOMIZED SOLUTIONS

SOPREMA offers original, efficient and high-tech solutions which respond to all building issues. Constantly optimized by R&D departments in an eco-design logic, **SOPREMA** systems today display exceptional performance in terms of resistance, reliability and longevity. So you can be sure of finding with the technical teams and solutions, the solution adapted to each type of site.

INNOVATION AS A DRIVING ELEMENT

The result of close collaboration between the marketing department and the Research & Development, the **SOPREMA** product offering is evolving in perfect adequacy with market expectations and current standards.

Products and services aim to meet the most demanding needs demanding building professionals.

The **SOPREMA** Group continues to expand its know-how by offering complete and quality acoustic solutions. Rich product offer 2 in 1, combining thermal and acoustic performance, **SOPREMA** offers global solutions.



KEY FIGURES AND NOISE CHALLENGES

Noise and noise pollution surround us on a daily basis (in homes, schools, hospitals, restaurants, at work, etc.).

Added to this is the strong urbanization and the multiplication of means transportation in cities.

For this, we seek to improve the quality of life in buildings through better acoustic comfort.

ACOUSTIC COMFORT, ESSENTIAL ELEMENT PERFORMANCE OF A BUILDING

Architects, promoters, designers and in particular acousticians as well that building companies are constantly looking for solutions to improve the quality of life and comfort in buildings. Acoustics is a parameter essential in new construction and in the renovation of a building where the comfort of residents and users is a priority.

Overall, poor sound insulation in buildings impacts from 10% to 20% the value of the property exposed to neighborhood noise⁽¹⁾.

⁽¹⁾Données des Notaires de Paris et une étude EY, 2014.

MEASUREMENT CRITERIA



R_w

AIRBORNE NOISE

It spreads through the air and the atmosphere, such as sounds from a radio or people chatting, traffic, rail, ...

Acoustic isolation from air noise between 2 rooms is appreciated by the D_{nTA} or D_{nTw} value.

The higher the value, the more important the performance.

The R_A or R_w value expressed in dB characterizes the performance intrinsic to a wall in terms of its ability to attenuate noise.

The higher this value, the higher the performance.



ΔL_w

IMPACT NOISE

It is the consequence of a vibration or a shock on a wall (floor, wall), such as a person's steps, moving furniture, falling objects, etc.

Inside a building, in the reception room, the level impact noise noted $L'_{nT,w}$ characterizes system performance constructive when the standardized impact machine is operating in the broadcast room.

The lower the value, the higher the performance.

The ΔL_w expressed in dB characterizes the difference in impact noise between a floor coated with an acoustic product and a floor uncoated reference material

The higher the value, the more effective the solution.



L_w

EQUIPMENT NOISE

It comes from the punctual or continuous operation of a device (elevator, taps, mechanical ventilation, heating, air conditioning, etc.).

Equipment noise emitted in the building is characterized by the L_{nAT} value expressed in dB (A). L_w indicates level of sound power which is the intrinsic characteristic noise source.

The lower the value, the quieter the product.



α_w

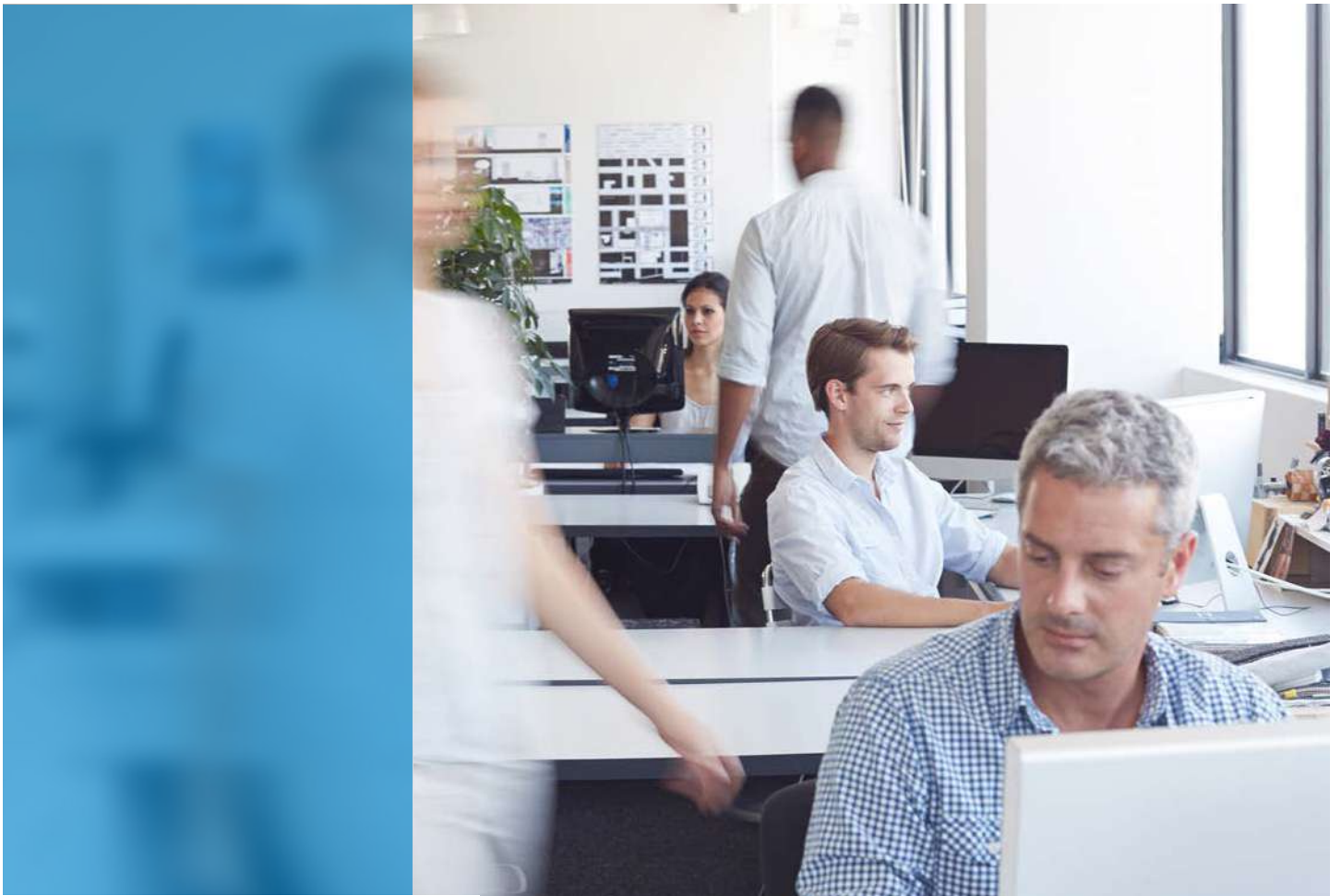
ACOUSTIC CORRECTION

It aims to improve indoor sound quality and reduce the noise level in a room. Reverberation in a room is characterized by time of **reverberation T**. To reduce this time, use acoustic absorbent materials.

These materials are characterized by their absorption coefficient, **coefficient α_w** (between 0 and 1).

The closer the value is to 1, the better the product.





ACOUSTICS IN CONSTRUCTION

Noise is one of the main sources of nuisance. The noises spread in a building through interior spaces, materials used, openings and the structure of the premises.

Acoustic comfort in buildings is an essential parameter to be considered from the design of the building.

A building is subjected to a set of noises coming from outside and inside. In order to improve acoustics it is important to note the following main principles.

WATERPROOFING: where air passes, noise also passes. Depending on the type of noise, good sealing guarantees good acoustics, especially for airborne noise.

NOISE TRANSMISSION: transmission between two rooms can be done directly through the dividing wall, but also indirectly through the walls side.



AIRBORNE NOISE

The emission of a noise generates vibrations which, in contact with a wall, can cause it to vibrate and be transmitted to the adjoining room. Depending on the frequency, the volume and the duration, these vibrations are perceived as a nuisance.

OUTDOOR AIRBORNE NOISE

Outdoor traffic (road, rail, air), human traffic on the street, etc. are examples of noise outdoor aeriels. for effective sound insulation from outside air noise, it is necessary to treat the waterproofing, the roof, facade and singular points (windows, air inlets, shutters, ...).



INDOOR AIRBORNE NOISE

Inside a room, the sources of airborne noise are multiple: discussions, radio, television...

To improve the interior acoustic comfort, it is necessary to increase the acoustic isolation by limiting the nuisances coming from outside this room.

To do this, it is necessary to improve the acoustic attenuation index of the different walls constituting the room by increasing their mass or by using double walls (mass / spring / mass systems).



IMPACT NOISE

Inside a room, the sources of nuisance can also be impact noise caused by a shock transmitting vibrations directly and indirectly to the supporting structure.

To reduce the transmission of shock intensity, the best solution is to intervene at the floor level that is the source of the noise.



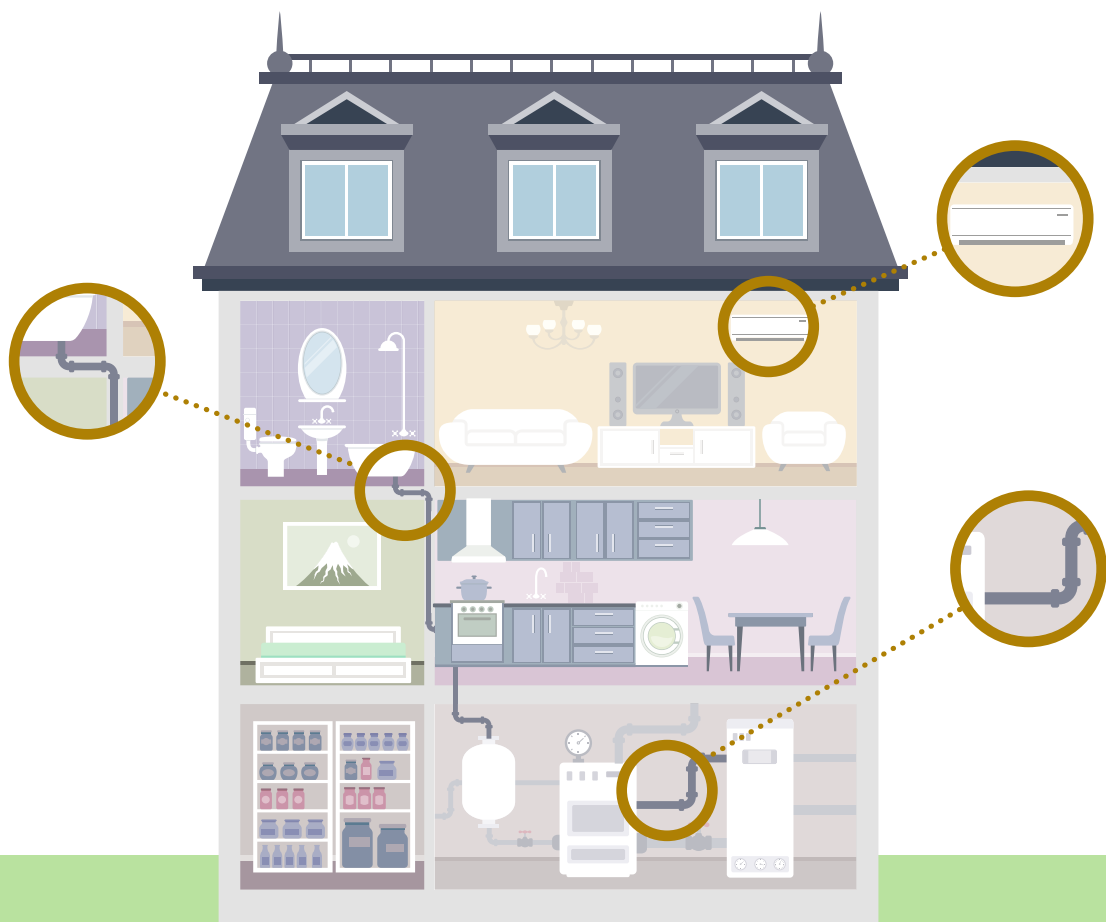


EQUIPMENT NOISE

Inside a room, sources of noise can also come from continuous or occasional use of equipment: heating (hydraulic network), air conditioning, air renewal (aeraulic network), water downpipes, etc.

Treating the acoustics of equipment noises means acting on two functions simultaneously:

- Isolation by a viscoelastic heavy mass which has the properties of dissipating vibrational energy.
- Absorption of vibrations to dissociate and avoid solidary transmissions.

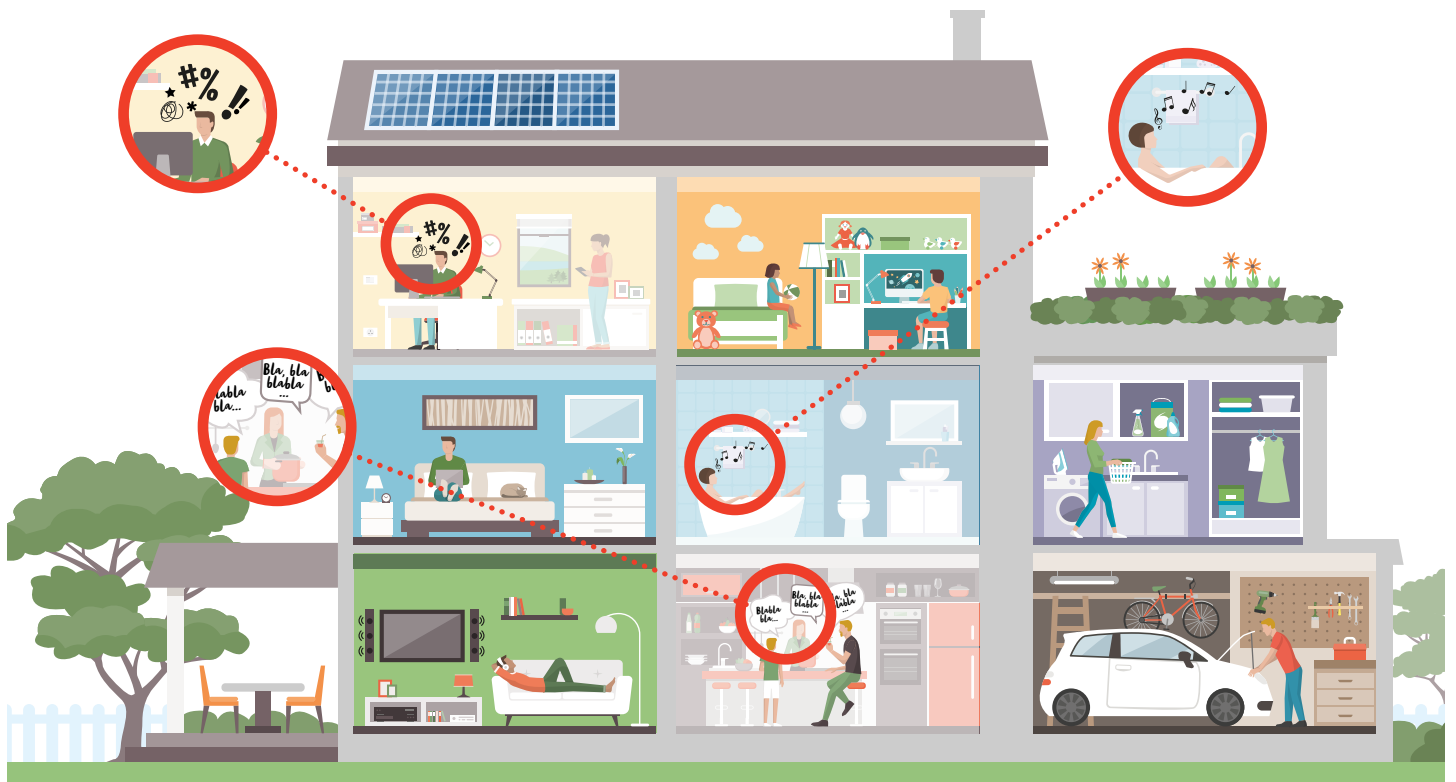




ACOUSTIC CORRECTION

Inside a room, noise propagates throughout the volume and the waves are gradually reflected on the walls until decreasing. For the correct acoustic correction of a room, you must control the reverberation time and the coefficient of sound absorption of the materials constituting the walls. Correcting the acoustics of a room means reducing the reverberation time and improving speech intelligibility.

The weather of reverberation varies according to the nature of the constructive elements in the room (tiles, glass, flooring ...). Treating the acoustics of a noisy room also means applying solutions with a high absorptency (high coefficient absorption).



Applications

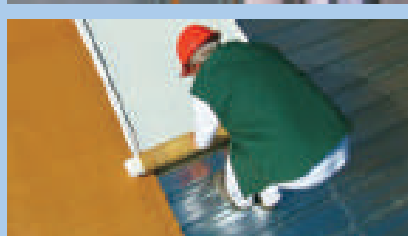
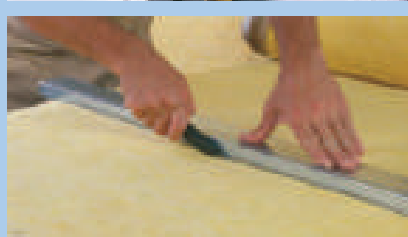
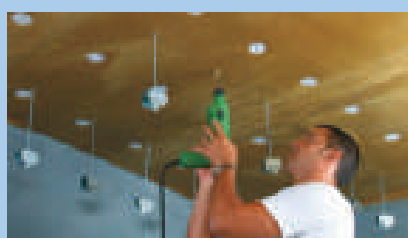
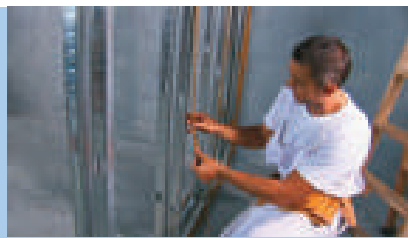
TECSOUND® covers a wide range of applications for acoustic insulation for both in terms of building such as in applications in the industrial sector.

CONSTRUCTION SECTOR

- 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.

INDUSTRIAL SECTOR

- 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

Tecsound®

TECSOUND® is a viscoelastic, high density polymer based and highly adaptable membrane providing good levels of soundproofing in different construction elements without increasing thickness.

APPLICATIONS

- Airborne noise insulation for vertical surfaces with low surface mass (lightweight partitions or panels in various materials).
- Airborne noise insulation for ceilings and roofs.
- Reduction of impact noise level in 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 machine enclosures, drainpipes, acoustic damping of metal sheets, etc.

Synthetic soundproofing membran

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070808	TECSOUND® 35	3.5	1.75	8 m x 1.22 m (r)
00070820	TECSOUND® 50	5	2.5	6 m x 1.22 m (r)
00070843	TECSOUND® 70	7	3.5	5 m x 1.22 m (r)
00070842	TECSOUND® 100	10	5	4 m x 1.2 m (r)

Tecsound® SY

TECSOUND® SY is the self-adhesive version of TECSOUND® membrane. Once peeled off the removable film it can be applied straight onto most surfaces. Dimensions designed specially for application on gypsum plasterboards.

APPLICATIONS

- Specially for gypsum plasterboard 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 membran

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070840	TECSOUND® SY 35	3.5	1.75	8.05 m x 1.22 m (r)
00070807	TECSOUND® SY 50	5	2.5	6.05 m x 1.22 m (r)
00070828	TECSOUND® SY 70	7	3.5	5.05 m x 1.22 m (r)
00070830	TECSOUND® SY 100	10	5	4 m x 1.20 m (r)

Tecsound® S Band

TECSOUND® S Band is a synthetic tape made of TECSOUND® membrane, 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.

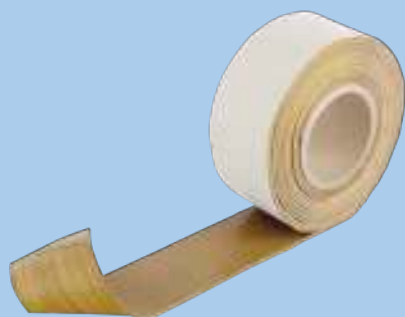
Self-adhesive, synthetic soundproofing tap

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070827	TECSOUND® S50 BAND 50	5	2.5	6 m x 0,05 m (r)



PROPERTIES

- > Acoustic insulation throughout the frequency range.
- > Easy to handle and cut.
- > High performance acoustic insulation combined with pliable components (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).



Tecsound® FT

TECSOUND® FT is a soundproofing complex including a porous felt and the TECSOUND® synthetic membrane to be used in different construction elements both horizontal and vertical.

- High performance 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.

- 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.

APPLICATIONS

Soundproofing complex made of Tecsoun ® membrane bonded to a porous felt

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070801	TECSOUND® FT 40	4.1	12	6 m x 1.20 m (r)
00070805	TECSOUND® FT 55	5.6	12.5	5.50 m x 1.20 m (r)
00070802	TECSOUND® FT 75	7.6	14	5.50 m x 1.20 m (r)

Tecsound® 2FT

TECSOUND® 2FT is a soundproofing complex including TECSOUND® synthetic membrane placed between two porous felts to be used in different construction elements both horizontal and vertical.

- 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 made of Tecsound® membrane between two porous felts

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070794	TECSOUND® 2FT 80	8.2	24	5.50 x 1.20 m (r)

Tecsound® FT 55 AL

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.

APPLICATIONS

- 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.

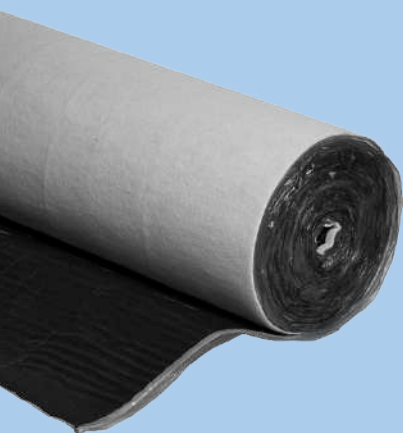
Soundproofing complex made of Tecsound® membrane finished with aluminium foil and porous felt

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00070804	TECSOUND® FT 55 AL	5.5	12.5	5.50 m x 1.20 m (r)



PROPERTIES

- > High performance acoustic and vibration insulation in pipes. IL 13-15 dBA
- > Low thickness which helps its installation and makes it suitable for refurbishing and framing pathways
- > Does not crack or break at low temperatures
- > Flexible and adaptable to elbows and bifurcations.
- > Excellent ageing resistance.
- > Easy to handle and cut.
- > Rot-proof.



PROPERTIES

- > High impact noise insulation capacity.
- > High resistance to compression and tearing.
- > Durability and stability with the ageing.
- > Easy and quick to install.
- > Unrolled in the direction it is installed.
- > Self-adhesive tape incorporated, for the most secure installation and overlap.
- > Waterproof.
- > High resistance to water vapour.
- > Rot-proof.
- > Resistant to the majority of chemical agents.
- > Tested product, millions of m2 installed.

Tecsound® TUBE

TECSOUND® TUBE is a complex made of TECSOUND membrane bonded to a high tenacity non-woven polyester mat. TECSOUND® TUBE is specially designed for soundproofing of ducts in buildings. Increase in acoustic insulation is due to the combined effect of the absorbing element and of the visco-elastic high density membrane

APPLICATIONS

- Soundproofing of ducts.
- Reduction of vibration and transmission levels.

REGULATIONS

In conformity with EN ISO 14366

Quality Management System according to ISO:9001

Soundproofing complex made of Tecsound® membrane bonded to a high tenacity non-woven polyester mat

Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00115472	TECSOUND® TUBE	3,75	4.75	8 m x 0.4 m (r)

IMPACT NOISE INSULATION

Velaphone fibre 22

Is an impact noise insulation layer for floors, comprising a high tenacity, polyester-based non-woven felt laminated to a bituminous protection. It offers an impact noise insulation of ΔL_w 22 dB.

APPLICATIONS

- Under loads of up to 500 kg/m².
- Underneath flooring.
- Under 5 cm thick (325 g/m²) reinforced mortar screed or under 6 cm thick non-reinforced mortar screed.

INSTALLATION

The installation of the insulation systems with VELAPHONE FIBRE 22 must be carried out by experienced staff.

- Apply directly to the support (so that the bituminous protection is on the upper side). Overlap and seal the joints using the part of the roll designed for this.
- In perimeters and joints with vertical surfaces, the Texfon self-adhesive disconnection tape will be installed.
- It must be protected until the final upper layer has been applied.

STANDARD AND CERTIFICATIONS

In compliance with the standards: EN ISO 140-1, EN ISO 140-3, EN ISO 140-6, EN ISO 140-8, EN 20140-2 and EN ISO 717/1/2.

- Quality system in accordance with the ISO: 9001 standard.

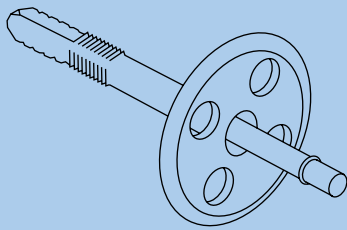
Code	Product	Weight Kg/m ²	Thickness mm	Presentation
00101689	TEXFON	Impact noise insulation layer through a polyester-based non-woven felt on a bituminous support	20 m x 1 m 16 rolls/pallet 3.4 mm thickness	Underneath floating parquet flooring and traditional flooring

AUXILIARY PRODUCTS

Texsimpact disconnection bands

Texsimpact disconnection bands are bands made of cross-linked polyethylene foam to be placed under the partition walls to break the acoustic bridge between wall and floor.

Code	Product	Description	Application	Presentation
00071535	TEXSIMPACT 10 mm BANDS FOR WALLS	Disconnection bands made of cross-linked polyethylene foam	Impact noise insulation	50 m x 11 cm x 10 mm Bag with 9 rolls: 450 ml



Fasteners

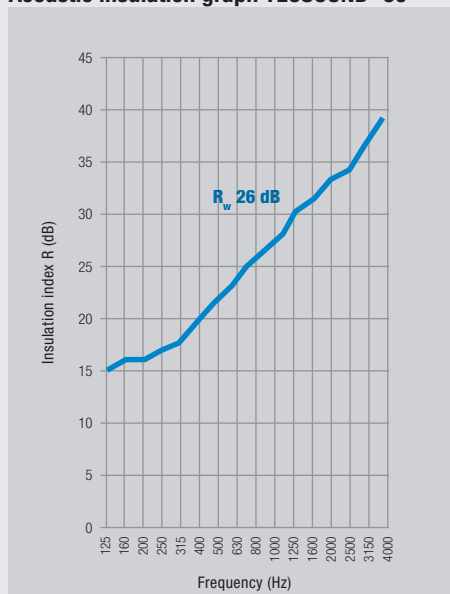
Code	Product	Application	Presentation
00071426	FASTENERS PT-H 70	Fixing of the Tecsound FT, Tecsound 2FT	Box with 250 uds.
00071427	FASTENERS PT-H 90		
00071428	FASTENERS PT-H 120		

The acoustic insulation level obtained 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 ΔL_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:

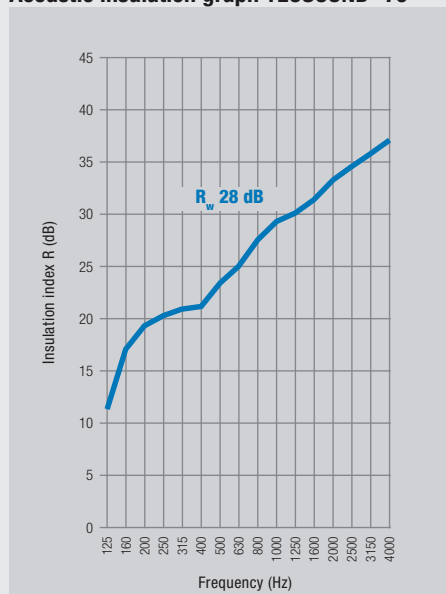
Acoustic insulation graph TECSOUND® 50



— Applus (Spain) nº 4.042.669

Frec. (Hz)	125	250	500	1000	2000	4000
R (dB)	15,0	16,8	21,6	26,5	31,2	36,3

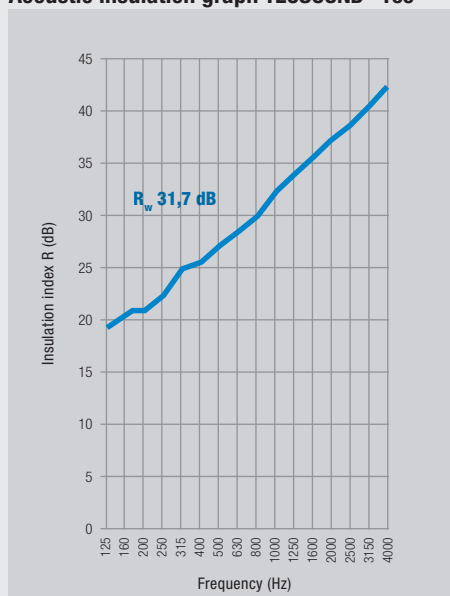
Acoustic insulation graph TECSOUND® 70



— 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

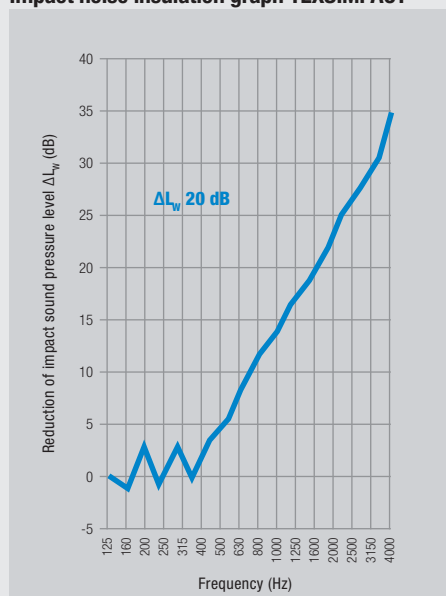
Acoustic insulation graph TECSOUND® 100



— Applus (Spain) nº 4.042.668

Frec. (Hz)	125	250	500	1000	2000	4000
R (dB)	19,6	22,4	27,2	32,3	37,4	42,8

Impact noise insulation graph TEXSIMPACT



— LGAI (Spain) nº 23.020.014

Frec. (Hz)	125	250	500	1000	2000	4000
ΔL _w (dB)	-3,8	7,4	10,6	18,9	26,9	35,5

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 Pavillion 0 La Fira Barcelona**
– Arch. Toyo Ito
- **IKEA Tempe Sydney (Australia)**



La Maison Olympique, CIO (Lausanne)
– Arch. 3XN



FIBES, Palacio de Congresos (Sevilla)
– Arch. Vazquez Consuegra



The Interlace (Singapore)
– Arch. Ole Scheeren - OMA

- The Copper Box Arena London (UK)
- Prime Minister Offices Brunei (Brunei)
- Manila Airport Philipines
- 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
- Olympic House - Sede Del Coi (Fr)
- Bordeaux Metropol Arena
- Luma Arles (Fr)



LA SEINE MUSICALE
 – Arch. Jean de Gastines / Shigeru Ban

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Any technical questions related to the
implementation of our products?

Contact our Technical Service
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