



ISOLMANT PERFETTO TR

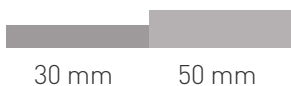
AIRBORNE SOUND INSULATION WITH AIR GAP CAVITY

FIBTEC technology in a product specifically designed for acoustic insulation of partition and perimeter walls with air gap cavity

WHAT IS ISOLMANT PERFETTO TR?

This product consists of a IsolFIBTEC PFT panel (recycled fibre of polyester for technical application whose density increases along the thickness). This fibre has high acoustic and thermal performance. Non toxic, ecological, with unlimited duration, recyclable. Full-height product for an easy installation. 30 mm and 50 mm thickness available.


Thicknesses available:



SPECIFIC APPLICATIONS

Isolmant Perfetto TR is a versatile product. It is recommended for acoustic and thermal insulation of vertical partitions, perimeter walls and partitions between different building units as well. Isolmant Perfetto TR can be used in air gap cavity through dry application between the two boards for masonry structures. This product can also be glued or bolted where required. No sealing is required between panels. In addition, it can be applied in a visible position as sound-absorbing material.



 All our products with the "Guaranteed Green Planet" logo are compliant with the sustainability criteria of the most important environmental protocols and certified according to the major national and international standards.



GREEN FEATURES OF ISOLMANT PERFETTO TR

- **Volatile Organic Compounds free** (VOC A+).
- **Eco-friendly and recyclable.**
- Manufactured with low environmental impact.
- Contributes to achieve credits for the **environmental certification** of a building according to **LEED** or **ITACA** standards.
- This product can be disposed of according to EWC n. 170604.

Complies with the requirements defined by the Italian CAM Edilizia for acoustic and thermal insulation materials regarding the request for high acoustic insulation performance, the percentage of recycled material and the absence of hazardous substances.

Green Planet is our sustainable development protocol that includes all our commitments to increase process, environmental, social and corporate responsibility.
A set of sustainable actions, goals and behaviors in agreement with our mission, our ethical choices and the **Sustainable Development Goals from 2030 Agenda**.



PRODUCT AND PRODUCTION
PROCESS SUSTAINABILITY



ENVIRONMENTAL
SUSTAINABILITY



CORPORATE
RESPONSIBILITY



SOCIAL
RESPONSIBILITY



Find out more
at [Isolmant.com](https://www.isolmant.com)



ADVANTAGES

- Can be used both in renovation and in new buildings.
- High airborne acoustic insulation.
- High thermal insulation.
- Low thermal conductivity.
- Unalterable over time.
- Unlimited duration.
- Contact with water does not compromise performance or characteristics.
- Resistant to mould or insects.
- Non-toxic and non-allergenic.

ADVANTAGES FOR INSTALLATION

- Easy installation.
- No sealing required between joints.
- Full height panel.

ISOLMANT PERFETTO TR > TECHNICAL SPECIFICATIONS

NOMINAL THICKNESS:	30 mm ⁽¹⁾	50 mm ⁽¹⁾
SOUND INSULATION:		$R_w = 58$ dB ⁽²⁾
"IN SITU" SOUND INSULATION:	$R'_w = 53$ dB ⁽³⁾	$R'_w = 55$ dB ⁽⁴⁾
CONDUCTIVITY:	$\lambda = 0.035$ W/mK	
THERMAL RESISTANCE:	$R_t = 0.858$ m ² K/W	$R_t = 1.429$ m ² K/W
SPECIFIC HEAT CAPACITY:	$c = 1200$ J/kgK	
VAPOUR RESISTANCE:	$\mu = 2$	
EQUIVALENT AIR LAYER THICKNESS:	$S_d = 0.06$ m	$S_d = 0.10$ m
REACTION TO FIRE:	Euroclass B-s2,d0 ⁽⁵⁾	
SOUND ABSORPTION:	$a_w = 0.35$ (H) - - Absorber class: D ⁽⁶⁾	$a_w = 0.55$ (MH) - - Absorber class: D ⁽⁷⁾
OPERATING TEMPERATURE:	Thermal decomposition > 380 °C - Melting point 195 °C - 260 °C	
VOC:	A+ ⁽⁸⁾	
CE MARKING:	Harmonised standards for CE marking are NOT currently available for acoustic insulation products. This means that Isolmant products are currently NOT subject to CE marking, nor to the drawing up of a PDO (declaration of performance) or DDP (declaration of performance). All Isolmant products are placed on the market in compliance with the regulations in force in the country of destination and with the necessary certifications to guarantee their use in dedicated applications.	
PACKAGE:	Packs of 10 panels (28.5 m ² per pack)	Packs of 7 panels (19.95 m ² per pack)
SIZE:	Panels with dimensions 1.00 m x 2.85 m = 2.85 m ² ⁽¹⁾	

(1) Upon request (20 working days of notice), it is possible to order non-standard size and thickness products, for minimum mandatory quantities depending on the thickness

(2) Test report RI.CERT. no. 11-5542-001 (Double wall with 8 cm and 12 cm Porotherm Bio Plan brick (3 plasters) and 50 mm Isolmant Perfetto TR in the air gap cavity)

(3) Value measured on site - see structure page 3 of this data sheet

(4) Value measured on site - see structure page 4 of this data sheet

(5) LAPI Test Report No. 1406.ODC0030/09

(6) LAPI Test Report No. 820.11UN0030/08

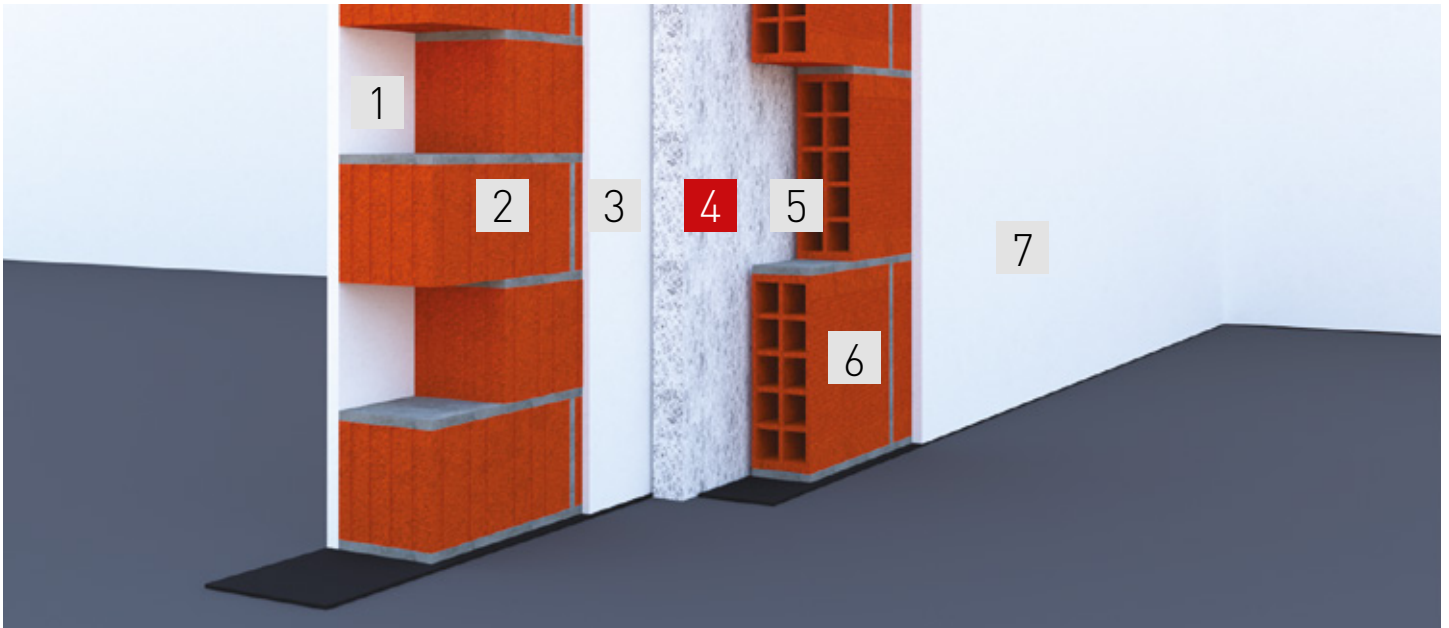
(7) LAPI Test Report No. 1270.11UN0030/08

(8) Istituto Giordano test report no. 322426

ITEM SPECIFICATIONS

Insulating panels (1.00 x 2.85 m) made of a layer of recycled fibre of polyester for technical application whose density increases along the thickness. This product provide a high sound insulation performance and thermal resistance as well (Isolmant Perfetto TR type). 30 or 50 mm nominal thickness Panel thermal resistance equal to 0.858- 1.429 m²K/W (for 30 and 50 mm versions respectively). Reaction to fire: Euroclass B-s2,d0.

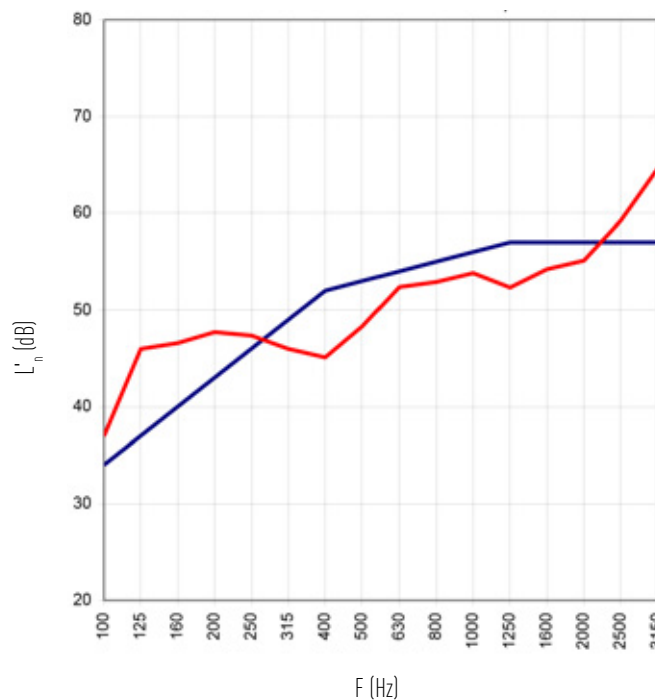
RESIDENTIAL BUILDING IN PORTO TORRES (SS)



No.	Layer	Material	Thickness (m)	Surface mass (kg/m ²)
1	Finishing plaster	Premix	0,015	21
2	Wall 1	perforated brickwork	0,12	78
3	Mortar	rustic	0,01	18
4	Insulation material	ISOLMANT PERFETTO TR	0,03	
5	Air gap	cavity	0,02	
6	Wall 2	perforated brickwork	0,08	62
7	Finishing plaster	Premix	0,015	21
Total thickness:			0,29	

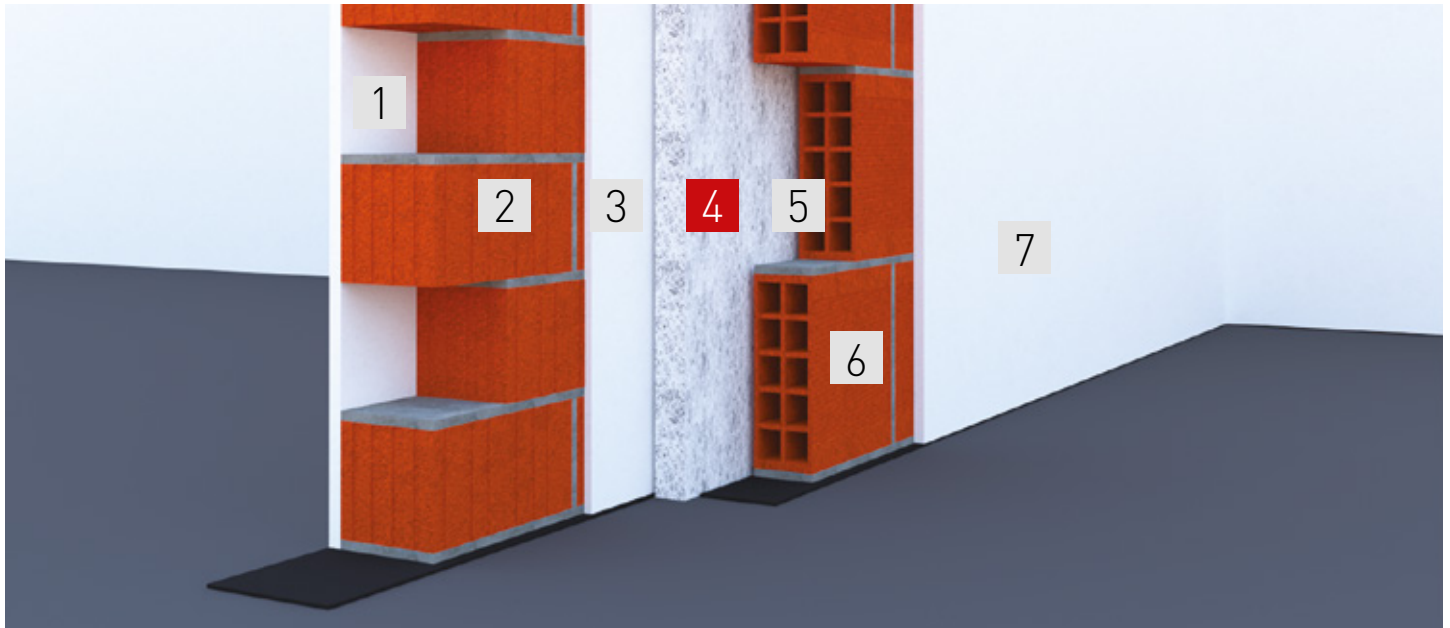
$$R'_w (C;C_{tr}) = 53 (-1;-3) \text{ dB}$$

— Measured curve
— Reference curve



Frequency (Hz)	R' _w (dB)
100	37
125	46
160	46,6
200	47,7
250	47,3
315	46
400	45,1
500	48,3
630	52,4
800	52,9
1000	53,8
1250	52,3
1600	54,2
2000	55,1
2500	59,2
3150	64,6

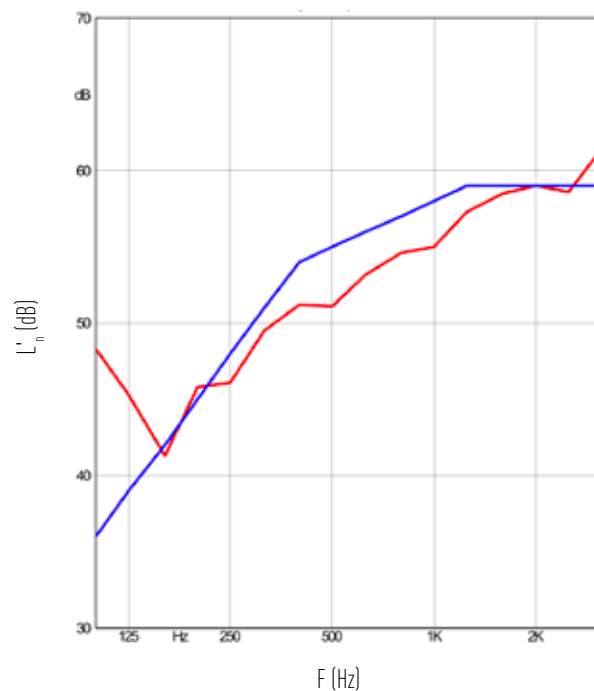
RESIDENTIAL BUILDING IN ALDENO (TN)



No.	Layer	Material	Thickness (m)	Surface mass (kg/m ²)
1	Finishing plaster	Premix	0,015	21
2	Wall 1	perforated brickwork	0,12	78
3	Mortar	rustic	0,01	18
4	Insulation material	ISOLMANT PERFETTO TR	0,05	
5	Air gap	cavity	0,03	
6	Wall 2	perforated brickwork	0,08	62
7	Finishing plaster	Premix	0,015	21
spessore totale			0,32	

$R'_w (C;C_{tr}) = 55 (-1;-3) \text{ dB}$

— Measured curve
— Reference curve



Frequency (Hz)	R' _w (dB)
100	48,3
125	45,3
160	41,3
200	45,8
250	46,1
315	49,5
400	51,2
500	51,1
630	53,2
800	54,6
1000	55
1250	57,3
1600	58,5
2000	59
2500	58,6
3150	61,5



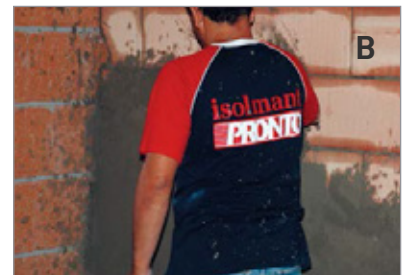
INSTALLING FASCIA TAGLIAMURO

STEP 1

Before starting the laying of all the partitions, including the internal counterfitting of the perimeter wall (if present), Isolmant Fascia Tagliamuro must be laid under the first brick layer. This high density, reticulated polyethylene foam accessory is specifically designed to disjoint partitions and slabs, and reduce the structural sound transmission from the walls to the slab. Disjointing occurs through imperceptible elastic behaviour that does not cause cracks in the finishing plaster. The elastic deformation is immediate (within 24 hours) and the plastic component is almost zero (figure A).

STEP 2 CREATING WALLS

It is advisable to build masonry partition walls between building units with two planks with a high and varied surface mass and which are perfectly airtight by virtue of the complete sealing of the vertical and horizontal joints between the bricks. If it is not possible to differentiate the masses of the flooring/slab, it is advisable to make a cement grout approximately 1 cm thick on one of the two boards (figure B).



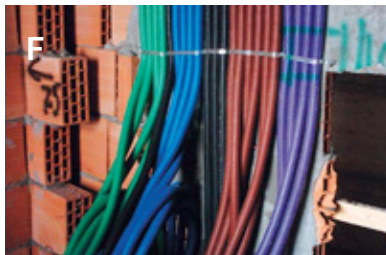
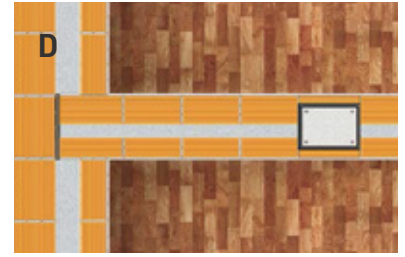
INSTALLING ISOLMANT PERFETTO TR PANELS

STEP 3

In double brick layer walls, the air gap cavity with the interposition of insulating material contributes to the reduction of the transmitted airborne noise component by acting on the reduction of the effect of air gap cavity resonance. In order to perform this function correctly, the insulation material must be carefully installed, with continuity over the entire surface of the masonry. Isolmant Perfetto TR produced in full-height panels or fast installation (figure C). It must be installed ensuring that it continuously covers the entire surface of the masonry without the need for sealing between panels (Isolmant Fascia Nastro does not stick to Isolmant Perfetto TR).

STEP 4 ACOUSTIC BRIDGES

When constructing the joint between the sound-insulating partition and the perimeter wall, the sound-insulating partition must be in direct contact with the external partition of the perimeter wall in order to prevent the passage of noise from one room to another through the air gap cavity in the perimeter wall (fig. D). It will then be necessary to correct the thermal bridge that will be created, using insulating materials with adequate thermal resistance. In the presence of stairwells, elevator compartments and pillars (even if contained within the vertical partitions) that rigidly connect all the structural elements from the foundations to the last floor, it is necessary to cover them with elastic material (such as Isolmant Cemento Armato) and then finish them, where possible, using a 4/5 cm roof tile/ or coated plasterboards. In the case of reduced thickness, it is possible to fix a strong plaster net directly onto the elastic material by using plastic fasteners and then finish the wall, paying particular attention to cracks (fig.E). Stairs can also be a vehicle for the passage of noise into the structure, so they must be insulated with suitable material (such as Isolmant KIT SCALE).



INSTALLING BUILDING SYSTEMS

STEP 5

It will be essential that the tracks, electrical boxes and any type of intervention that is carried out on the sound-insulating partition do not alter its acoustic performance. It is therefore advisable to always reconstruct the recesses and electric tracks with abundant mortar and, if possible, avoid inserting systems or boxes in the partition which would demolish a large part of it, drastically reducing the mass and, sometimes, even the thickness of the insulation and consequently the soundproofing performance desired at the design level (figure F).



WARNINGS:

* This data sheet does not constitute a specification and, if it consists of several pages, please ensure that you have consulted the complete document. Although, these instructions are the result of our best expertise they are indicative. The user should establish whether the product is suitable for its intended application. The user will be also in charge of all the responsibility for the use of the product itself.

**The sound insulation values given in this technical data sheet are the result of laboratory tests or tests carried out on site: they cannot be considered a predictive value for every situation that may occur on site. Acoustic performance is closely linked to the specific conditions of each site.

***Caution: do not expose the product to direct sunlight and bad weather.



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