



TRO
CEL
LEN

INSULATION

WALL INSULATION

Construction



Wall Insulation

The airborne sound spreads between two rooms due to the air vibration that strains the horizontal or vertical partitions.

Thanks to the sound insulation of the partition, internal or external, it's possible to reduce the noise transmission towards an environment different from that in which the sound is generated.

The extent of the air noise reduction is defined Soundproofing Power R_w for the internal walls and Façade Sound Insulation $D_{2m,nT}$ for the external walls. They represent the difference in noise level, measured in dB, that the wall is able to determine between the chamber in which the noise is generated and the receiving one.

SERIE GENERALE

*Spediz. abb. post. 45% - art. 2, comma 20/b
Legge 23-12-1996, n. 662 - Filiale di Roma*

Anno 138° — Numero 297



GAZZETTA UFFICIALE

DELLA REPUBBLICA ITALIANA

The Italian Decree of the President of the Council of Ministers - 5 December 1997 - defines the minimum values for the Soundproofing Power R_w and for the Façade Sound Insulation $D_{2m,nT,w}$ (measured on site), classified according to the intended use of the building.

TROCELLEN

Sound and thermal insulation for dividing external and internal walls

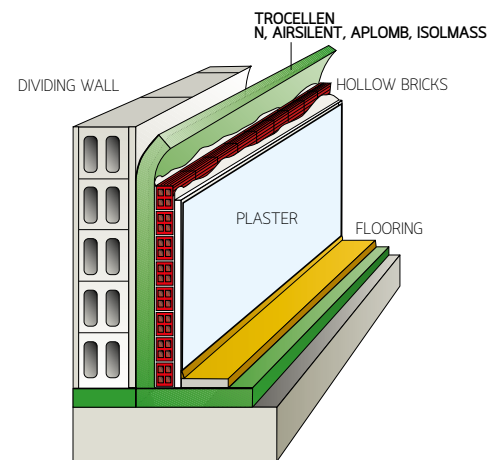
The range of thermal and sound insulation products for dividing external and internal walls has been expanded. We have added products with a better airborne sound performance, thanks to the combination of sound absorption, resilient, and heavy layer materials:

- AIRSILENT
- APLOMB
- ISOLMASS

TROCELLEN N

Cross-linked polyethylene foam, density 30 kg/m³, indicated for the high thermal properties.

The thermal conductivity coefficient at 10 °C (λ), according to EN 12667, is 0,0359 W/mK (0,031 kcal/mh °C).



AIRSILENT

FLAT AIRSILENT

Tipologie disponibili:

- **K**: polyester-based polyurethane foam, anthracite colour
- **KP**: as K type bonded on one side with black embossed polyolefin film
- **AL**: as K type bonded on one side with metallic embossed polyolefin film
- **K-ALU**: as K type bonded on one side with aluminium

The black or metallic film covering is applied for protection, making the protect resistant to dust and humidity and prolonging its life span.

EGG-BOX SHAPED AIRSILENT

Same characteristics as K type

• Thickness:

20 mm = 10 flat and 10 Egg-box shaped

30 mm = 15 flat and 15 Egg-box shaped

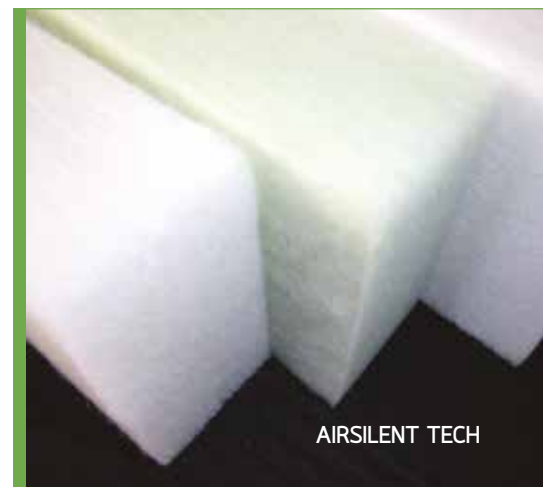
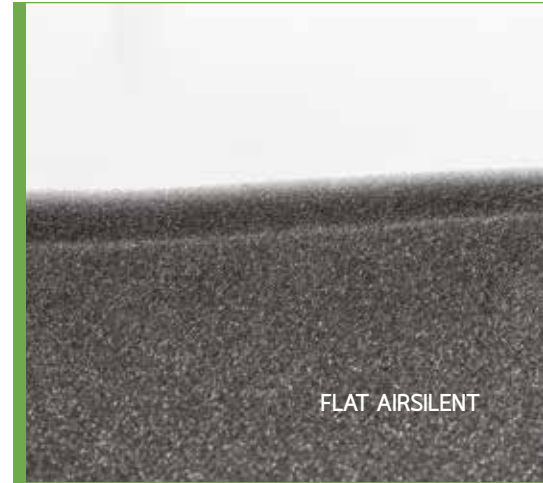
40 mm = 20 flat and 20 Egg-box shaped

50 mm = 25 flat and 25 Egg-box shaped

AIRSILENT TECH

Textile polyester fibres (80-90% regenerated), thermo-welded without resins and glue, density 40 kg/m³, colour white or green.

- Very good mechanical resistance
- Fire resistant, flammability classification can be Class 1/B-s2,d0; no afire dripping
- Ultra low toxicity and opacity of fumes in case of fire (F1 classification, according to FR F 16-101)
- Atoxic



APLOMB

Multi-layered product with one or more layers of lead bonded with flexible, muffling and sound-absorbing materials.

APLOMB 11

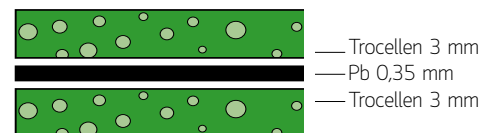
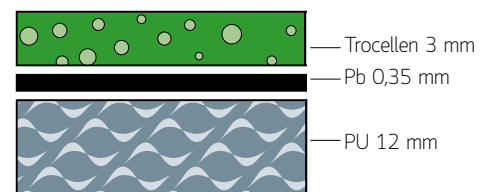
Composition:

- layer of polyethylene foam (anti-vibration) laminated with embossed black film, **3 mm thick**
- **0,35 mm, 4 kg/m²** weight lead layer
- layer of open-cell (sound-absorbing) polyurethane foam, **12 mm thick**

APLOMB 22

Composition:

- layer of anti-vibration polyethylene foam laminated with black embossed film, **3 mm thick**
- **0,35 mm, 4 kg/m²** weight lead layer
- layer of anti-vibration polyethylene foam laminated with black embossed film, **3 mm thick**

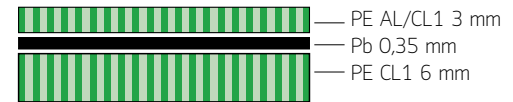




APLOMB AL/CL1

Composition:

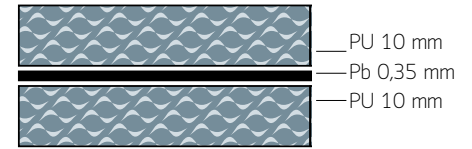
- layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, **Class 1, 3 mm thick**
- **0,35 mm, 4 kg/m²** weight lead layer
- layer of polyethylene foam (anti-vibration), **6 mm thick Class 1**, bonded with black embossed film



APLOMB 1

Composition:

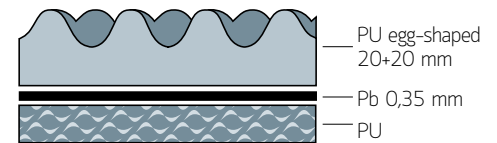
- layer of open cell polyurethane foam, variable thickness
- **0,35 mm, 4 kg/m²** weight lead layer
- layer of open cell polyurethane foam, variable thickness



APLOMB 1/B

Composition:

- layer of polyurethane foam, **10 mm thick**
- **0,35 mm, 4 kg/m²** weight lead layer
- layer of 20 + 20 mm Egg-box shaped polyurethane foam. Also available 15 + 15 mm



ISOLMASS

A multi-layered product range, with heavy sleeve, laminated with flexible, resilient and sound absorbing materials.

ISOLMASS 11

Composition:

- layer of polyethylene foam (anti-vibration), thickness **3 mm**
- heavy layer weighing **4 kg/m²**
- layer of open cell polyurethane (sound absorption), thickness **12 mm**



ISOLMASS 22

Composition:

- layer of polyethylene foam (anti-vibration), thickness **3 mm**
- heavy layer weighing **4 kg/m²**
- layer of polyethylene foam (anti-vibration), thickness **3 mm**

ISOLMASS 1 TECH

Composition:

- layer of polyester fiber (PET), thickness **10 mm**
- heavy layer weighing **4 kg/m²**
- layer of polyester fiber (PET), thickness **20 mm**

ISOLMASS 4 TECH

Composition:

- layer of polyester fiber (PET), thickness **20 mm**
- heavy layer weighing **4 kg/m²**

ISOLMASS 4

Composition:

- heavy layer weighing **4 kg/m²**

ISOLMASS is available with heavy layer weighing from 2 to 8 kg/m² (from 3 to 10 kg/m² for the fire retardant version).







ITEM SPECIFICATIONS

AIRSILENT

FLAT AIRSILENT

Open-cell polyester based polyurethane foam, flexible, available also laminated, on one side, with black embossed polyolefin film (KP)/embossed metallic film (AL)/aluminium (K-ALU), variable thickness.

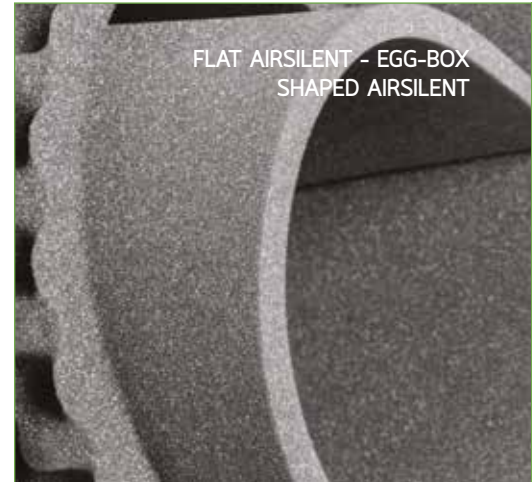
EGG-BOX SHAPED AIRSILENT

Open-cell polyester based polyurethane foam, flexible, egg-box shaped, variable thickness.

AIRSILENT TECH

Textile polyester fibres (80-90% regenerated), thermo-welded without resins and glue, density 40 kg/m³, colour white or green.

- Fire resistant, flammability classification can be Class 1/B-s2,d0; no fire dripping
- Ultra low toxicity and opacity of fumes in case of fire (F1 classification, according to FR F 16-101)
- Atoxic



APLOMB

APLOMB 11

Thermal-acoustic insulation material for walls and drain pipes. Three-layer composite product, laminated with 12 mm open cell polyurethane, lead layer 0,35 mm and **TROCELLEN** (chemically cross-linked polyethylene foam, closed cell), 3 mm thick

APLOMB 22

Thermal-acoustic insulation material, for humid walls, composed with lead layer 0,35 mm, laminated on both sides, and **TROCELLEN** (chemically cross-linked polyethylene foam, closed cell) 3 mm.

APLOMB AL/CL1

Thermal-acoustic insulation material, composed with lead layer 0,35 mm, laminated on one side with chemically cross-linked polyethylene foam **TROCELLEN** (vibration damping) with embossed metallic film, Class 1, 3 mm thick and on the other side with chemically cross-linked polyethylene foam **TROCELLEN** (vibration damping), Class 1, 6 mm thick.

APLOMB 1

Thermal-acoustic insulation material for walls, composed with lead layer 0,35 mm, laminated on both sides, and open cell polyurethane foam, variable thickness.

APLOMB 1/B

Thermal-acoustic insulation material for walls, composed with lead layer 0,35 mm, laminated on one side with open cell polyurethane foam, variable thickness, and on the other side with expanded polyurethane foam, variable thickness.



ISOLMASS

ISOLMASS 11

A three-layer composite product for airborne sound insulation of waste water pipes in plastic and partitions in general. Composed of a heavy, charged polyolefinic layer, laminated on a side with **TROCELLEN** cross-linked PE foam with a thickness of 3 mm, and on the other side with open cell PU with a thickness of 12 mm.
Net weight: 4,4 kg/m²

ISOLMASS 22

A three-layer composite product for impact and airborne sound insulation of floors and walls. Composed of a charged, polyolefin heavy layer, laminated on both sides with **TROCELLEN** cross-linked PE foam with a thickness of 3 mm.
Net weight: 4,2 kg/m²

ISOLMASS 1 TECH

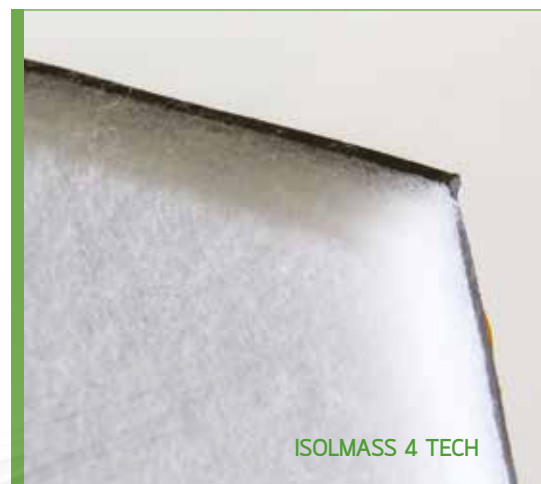
A three-layer composite product for airborne sound insulation partitions in general.
Composed of a charged, polyolefin heavy layer, laminated on both sides with polyester fiber (PET) with a thickness of 10 and 20 mm.
Net weight: 5,2 kg/m²

ISOLMASS 4 TECH

A two-layer composite product for airborne sound insulation partitions in general.
Composed of a charged, polyolefin heavy layer, laminated on one sides with polyester fiber (PET) with a thickness of 20 mm.
Net weight: 4,8 kg/m²

ISOLMASS 4

A single layer product, used as vibration damping for airborne sound insulation of partitions. Composed only of heavy layer, thickness 2 ÷ 4 mm.
Net weight: 4 kg/m²



INTERNATIONAL LOCATIONS

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TROCELLEN*

Trocellen is the first choice European polyolefin foam-solution provider. Through continuous innovations and successful partnerships we dedicate ourselves to one goal: protecting and providing comfort for people.

After more than 40 years, with 600 employees at seven sites and many cooperating companies, various partner universities, institutes and designers we offer solutions for our business partners in various industries such as construction and insulation, automotive, leisure and professional sport, adhesive tapes, footwear and packaging.

*Trocellen is the member of Furukawa Group.

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40° 28' N	03° 21' O	Spain
41° 53' N	12° 28' O	Italy
47° 30' N	19° 02' O	Hungary
02° 54' N	101° 28' O	Malaysia
35° 40' N	139° 49' O	Japan FURUKAWA

