



TRO
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INSULATION

TROCELLEN AIRSILENT-APLOMB®

Wall and Pipe applications

Acoustic Insulation



Airsilent

Flexible, open cell polyester-based polyurethane foam used for sound-proofing.

PHYSICAL-CHEMICAL CHARACTERISTICS

- Density: 25 kg/m³
- Colour: anthracite
- Uniform cell structure
- Resistant to air flow with consequent improvement in sound absorption
- Increased hysteresis and reduced elasticity for enhanced shock absorption
- Resistant to organic solvents
- Stretch and tear resistant
- Hard wearing
- Temperature resistant from -20 °C to + 120 °C

Thanks to these characteristics, **AIRSILENT** can be cut into ashlar shapes making the product aesthetically attractive too in visible applications. The special composition of the foam with polyester base ensures that the product is in compliance with the fire behavior standard **FMVSS MOTOR VEHICLE SAFETY Std 302** for all the supplied thicknesses.

FLAT AIRSILENT

Available types:

- **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

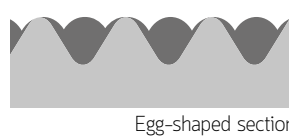
The black or metallic film covering is applied for protection, making the protect resistant to dust and humidity and prolonging its life span.

- Size: **1.500 mm** high rolls in various lengths
- Thickness: **10 - 15 - 20 - 25 - 30 mm**

EGG-BOX SHAPED AIRSILENT

Same characteristics as K type

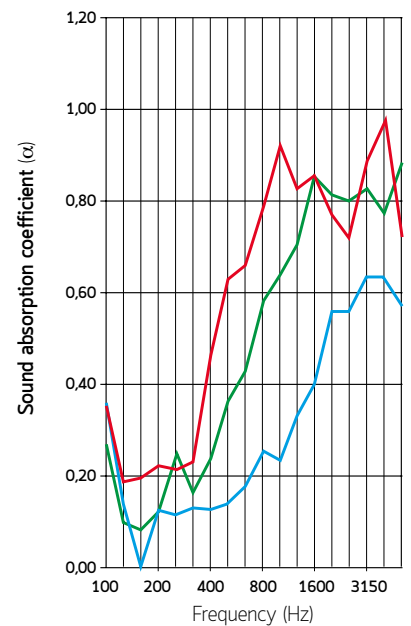
- Thickness:
 - 20 mm** = 10 flat and 10 Egg-box shaped
 - 30 mm** = 15 flat and 15 Egg-box shaped
 - 40 mm** = 20 flat and 20 Egg-box shaped
 - 50 mm** = 25 flat and 25 Egg-box shaped
- Size: **1.500 mm** high rolls in various lengths
- 40 mm thick available in 1,00 x 2,00 m sheets



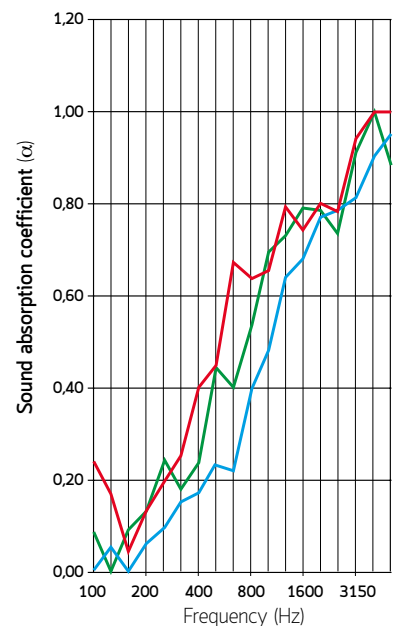
Egg-shaped section



Full range



- 30 mm K-type Airsilent
- 20 mm K-type Airsilent
- 10 mm K-type Airsilent

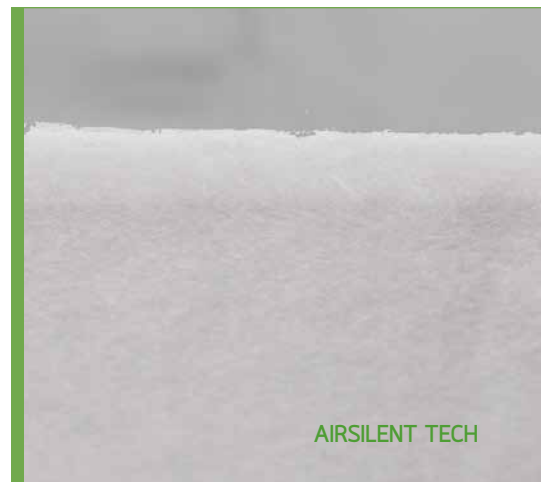


- Egg-box shaped Airsilent: 20+20 mm
- Egg-box shaped Airsilent: 15+15 mm
- Egg-box shaped Airsilent: 10+10 mm

AIRSILENT TECH

Textile polyester fibres (85% regenerated), thermo-welded without resins and glue, density 40 kg/m³, colour white.

- Very good mechanical resistance
- Fire resistant, flammability classification can be Class 1/B-s2,d0; no dripping
- Ultra low toxicity and opacity of fumes in case of fire (F1 classification, according to NF F 16-101)
- Atoxic
- Thickness: **10 - 20 - 30 mm**
- Size: **1.000 or 1.200 mm** high rolls in various lengths



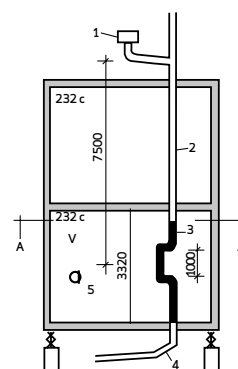
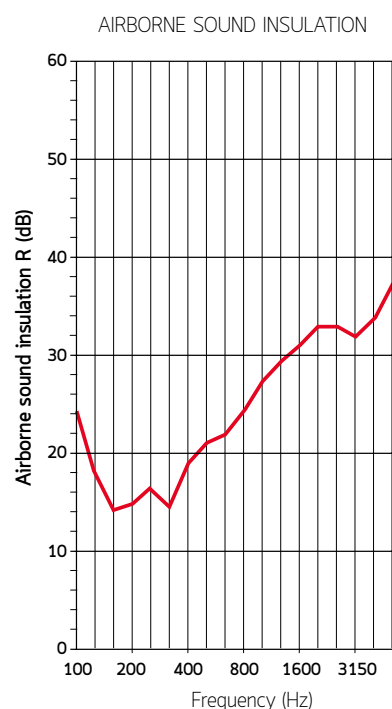
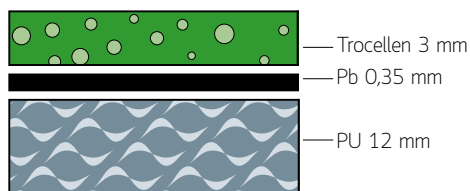
AIRSILENT TECH

Aplomb

Multi-layered product with a layer of lead bonded with flexible, sound-insulating 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
- Size: **1.00 x 3.00 m** sheets
- Packaging: rolled in cardboard (0.25 x 0.25 x 1.00 m)
- Applications: noise **insulation for waste water piping in polyethylene** or PVC. Wrapped around the pipes, lowers the noise level from waste water by c. 15 dB. The product can be supplied in self-adhesive version, just for temporary application in order to make the installation phase safer and easier. Then the product must be secured with mechanical fixings
- Airborne sound insulation - Weighted sound reduction index (ISO 140/3, ISO 717/1): **R_w = 26 dB**



1. 9 lt. WC cistern
2. ø100 PC waste pipe
3. test section
4. 45° Z bend
5. measuring instrument
- V. measuring chamber

(Tests carried out at EMPA, Swiss regulation Authority, Pb 0.5 mm lead layer)

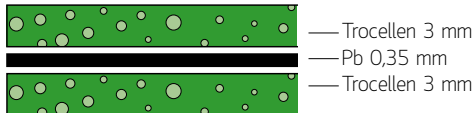
AIRBORNE SOUND INSULATION TEST

| FLOW RATE (l/min) | NOT INSULATED dB(A) | INSULATED dB(A) | REDUCTION dB(A) |
|-------------------|---------------------|-----------------|-----------------|
| 50 | 63 | 46 | 17 |
| 100 | 66 | 50 | 16 |
| 200 | 68 | 54 | 14 |
| | | | average= 16 |



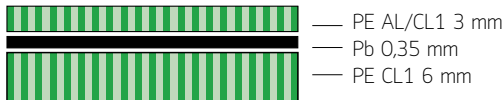
APLOMB 22

- 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
- Size: **1,00 x 3,00 m** sheets
- Packaging: rolled in cardboard (0,20 x 0,20 x 1,00 m)
- Applications: Underlay and walls for houses, offices etc. This product is used to prevent noise entering or leaving a specific area or room. *
- Airborne sound insulation - Weighted sound reduction index (ISO 140/3, ISO 717/1): **R_w = 24 dB**



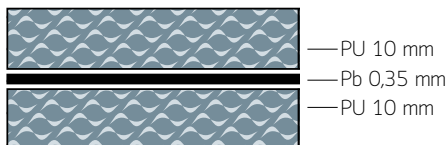
APLOMB AL/CL1

- 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
- Size: **1,00 x 1,50 m** sheets
- Packaging: sheets on pallet
- Applications: sound proof cladding for pipes, walls and cabins (when **Class 1** product is required) *
- Airborne sound insulation - Weighted sound reduction index (ISO 140/3, ISO 717/1): **R_w = 24 dB**



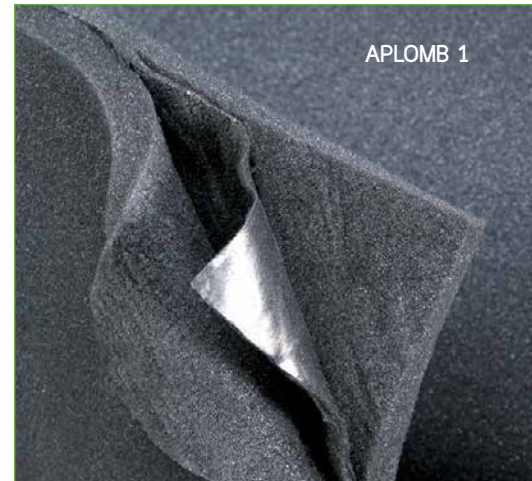
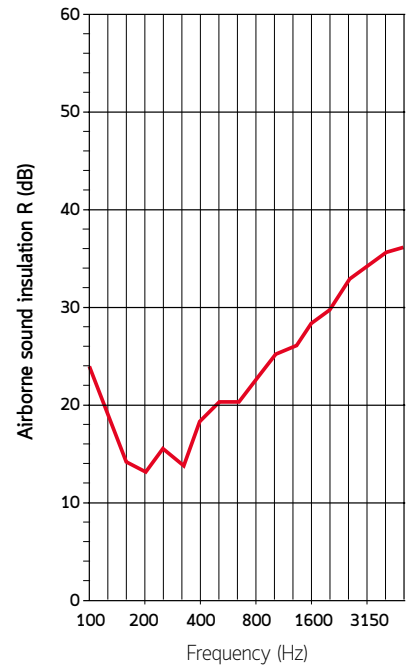
APLOMB 1

- 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
- Size: **1,00 x 1,50/2,00 m** sheets
- Packaging: 1,00 x 1,50 m flat sheets or 1,00 x 2,00 m rolled up on pallet
- Applications: used for sound-proofing of walls as the dampening capacity of the lead is backed up by the high absorption capacity of polyurethane *
- Airborne sound insulation - Weighted sound reduction index (ISO 140/3, ISO 717/1): **R_w = 27 dB**

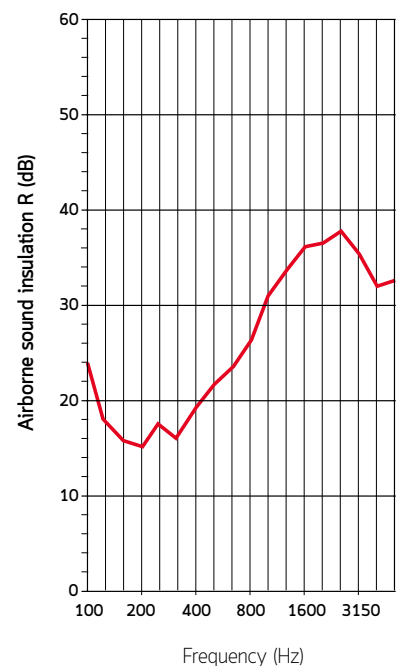


- * **The product can be supplied in self-adhesive version, just for temporary application in order to make the installation phase safer and easier. Then the product must be secured with mechanical fixings.**

AIRBORNE SOUND INSULATION

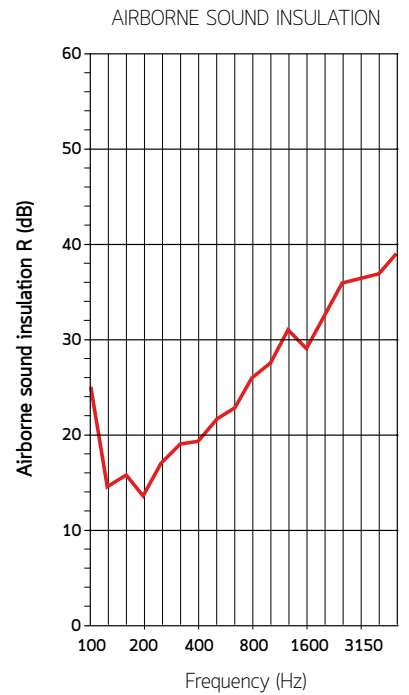
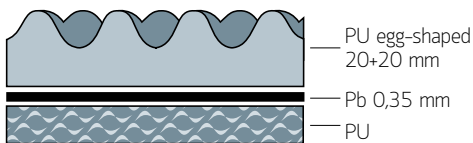


AIRBORNE SOUND INSULATION



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
- Size: **1,00 x 1,50 m** sheets
- Packaging: rolled or flat sheets
- Applications: for visible sound insulation and absorption. The product can be supplied in self-adhesive version, just for temporary application in order to make the installation phase safer and easier. Then the product must be secured with mechanical fixings
- Airborne sound insulation - Weighted sound reduction index (ISO 140/3, ISO 717/1): **R_w = 27 dB**



ITEM SPECIFICATIONS

AIRSILENT (sound absorption)

Flexible, open-cell polyester based polyurethane foam

APLOMB (sound insulation)

Three-layer composite product with sheet of lead sandwiched between two flexible foam layers (polyethylene and polyurethane).

See detailed descriptions of the products above for information on product uses.

AD (adhesive)

All the above listed products can be supplied with self-adhesive on request. For Aplomb product range, the self-adhesive versions are useful to support the installation phase, making it faster and easier. Then the product must be secured with mechanical fixings.



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TROCELLEN*

Trocellen is a multinational company owned by Furukawa Electric Co. Ltd, internationally renowned for the design and manufacture of cross-linked polyolefin foams. Through its different Business Units, the company is able to meet the specific needs of the market with a wide range of products and solutions.

It manufactures both semi-finished and finished products. The Trocellen products stand out for their manufacturing processes and the many industrial sectors in which they can be used: Insulation, automotive, footwear, sport and leisure, adhesive tapes and packaging. Trocellen makes safety a lifestyle and turns safety into a lifestyle.

Insulation Business Unit

The Insulation Business Unit mainly specialises in Sound and Thermal insulation for the building industry. The goal is to create comfortable environments for people or rather to "help people live better!"

*Trocellen is the member of Furukawa Group.



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| | | |
|-----------|------------|----------------|
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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 |

