

# **SOUND INSULATION**

**AIRSILENT - APLOMB** 



# **AIRSILENT**

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

## PHYSICAL-CHEMICAL CHARACTERISTICS

- Density: 25 ÷ 30 kg/m³
- Colour: Anthracite
- Uniform cell structure
- Resistant to air flow with consequent improvement in sound absorbtion
- 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 or pyramid shapes making the product aesthetically attractive too when used externally and in view. The special composition of the foam with polyester base ensures that the product is conforms to the fire behaviour standard **FMVSS MOTOR VEHICLE SAFETY Std 302** for all the suplied thicknesses.

#### **FLAT AIRSILENT**

K type: anthracite colour

KP type: as K type bonded on one side with black embossed

polyolefin film.

AL type: as K type bonded on one side with metallic embossed

polyolefin film.

K-ALU type: as K type bonded on one side

with perforated aluminium

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

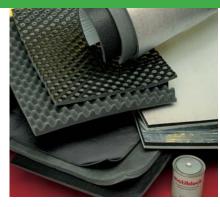
- Size: 1.500 mm high rolls in various lengths
- Thickness: 10 15 20 25 30 mm

#### **EGG-BOX SHAPED AIRSILENT**



Same characteristics as K type

- Thickness: 20 mm = 10 flat and 10 Egg-box shaped
  - 30 mm = 15 flat and 10 Egg-box shaped 40 mm = 20 flat and 10 Egg-box shaped 50 mm = 25 flat and 10 Egg-box shaped
- Size: 1.500 mm high rolls in various lengths
- 40 mm thickness available in 1.00 x 2.00 m sheets



AIRSILENT - sound absorption - EN 20354

30 mm K-type Airsilent

20 mm K-type Airsilent

- 10 mm K-type Airsilent

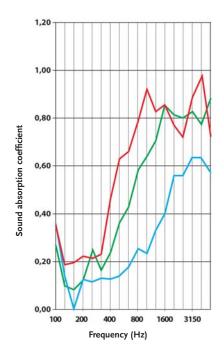
20 + 20 mm

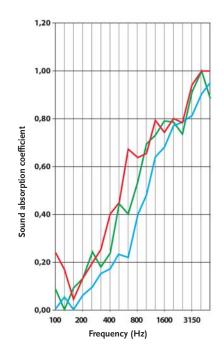
15 + 15 mm Airsilent

10 + 10 mm

Airsilent

Airsilent

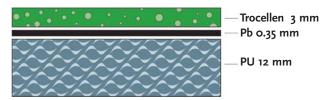




# **APLOMB**

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

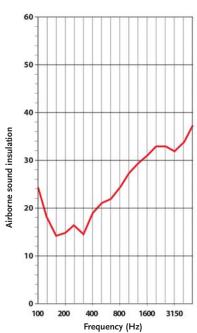
# APLOMB 11

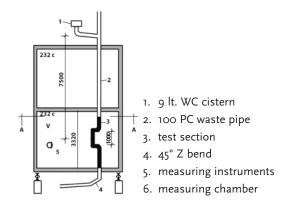


- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, **3mm** thick.
  - **0.35 mm, 4 kg/m²** weight lead layer
  - Layer of open-cell (sound-absorbing) polyurethane foam, **12 mm** thick
- Size: 1.00 x 2.00 m sheets
- Packing: Rolled in cardboard (0.20 x 0.20 x 1.00 m)
- Uses: 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.
- Sound insulation for walls: Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz (ISO 140/3, ISO 717/1): Rw = 26.0 dB



### Wall insulation





Tests carried out at EMPA (0.5 mm lead layer) (SWISS REGULATING AUTHORITY)

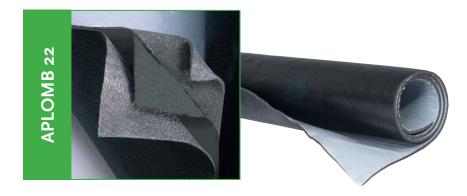
# **TEST AIRBORNE SOUND INSULATION**

Load (l/min)	No insulation dB(A)	Insulation dB(A)	Reduction dB(A)
50	63	46	17
100	66	50	16
200	68	54	14
			average = 16

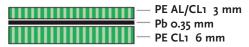
#### **APLOMB 22**



- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, **3mm** 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
- Packing: Rolled in cardboard (0.20 x 0.20 x 1.00 m)
- Uses: Underlay and walls for houses, offices etc.
  This product is used to prevent noise entering or leaving a specific area or room (especially low frequency waves).
- Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz (ISO 140/3, ISO 717/1): Rw = 26 dB

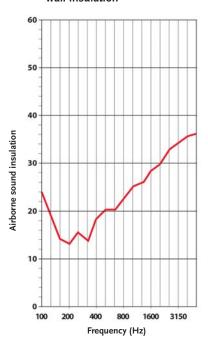


# APLOMB AL/CL1



- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, **Class 1, 3mm** thick.
  - 0.35 mm, 4 kg/m² weight lead layer
  - Layer of polyethylene foam (anti-vibration), **6 mm** thick **Class 1 (I)** bonded with black embossed film
- Size: 1.00 x 1.50 m sheets
- Packing: Rolled
- Uses: sound proof cladding for pipes, walls and cabins (when Class 1 product is required).

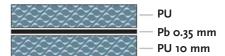
#### Wall insulation





# airsilent - aplomb

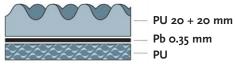
#### **APLOMB 1**



- 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 2.00 m sheets
- Packing: Rolled
- Uses: used for sound-proof walls where the dampening capacity of the lead is backed up by the high absorption capacity of polyurethane.
- Evaluation index,with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz (ISO 140/3, ISO 717/1): Rw = 27 dB

On request this product is available with **two sheets of lead** layered between three layers of polyurethane to give greater insulation (APLOMB 2).

# APLOMB 1/B



- Composition:
  - Layer of polyurethane foam, 10 mm thick
  - 0.35 mm, 4 kg/m² weight lead lamina
  - Layer of **20 + 20 mm** Egg-box shaped polyurethane foam. Also available **10+10 mm**, **15+15 mm** and **25+25 mm**.
- Size: 1.00 x 1.50 m sheets
- Packing: Rolled or laid flat
- Uses: used for visible sound insulation
- Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz (ISO 140/3, ISO 717/1): Rw = 27 dB

# **SUMMARY**

**AIRSILENT** (sound absorbion)

Flexible, open-cell polyester based polyurethane foam.

APLOMB AIRBOURNE (sound insulation).

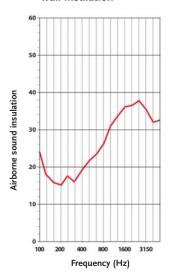
Three-layer composite product with sheet of lead sandwiched between two flexible foam layers (polyethylene and polyurethane).

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

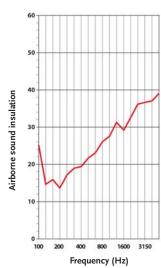




#### Wall insulation



#### Wall insulation



#### AD (adhesive):

All the above listed products can be supplied with self-adhesive on request.

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# World-leading supplier of long lasting insulation foams

