**AIRSILENT** - **APLOMB**

**World-leading supplier of long lasting insulation foams**

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**SUMMARY**

**AIRSILENT** (sound absorption)
Flexible, open-cell polyester based polyurethane foam.

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

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

**AD (adhesive):**
All the above listed products can be supplied with self-adhesive on request.

www.trocellen.com / info@trocellen.com
Flexible, open cell polyester-based polyurethane foam used for soundproofing.

**PHYSICAL-CHEMICAL CHARACTERISTICS**
- Density: 32 - 38 kg/m³
- Colour: Anthracite
- Uniform cell structure
- Resistant to air flow with consequent improvement in sound absorption
- Versatile properties and reduced stability
- No enhanced shock absorPTION
- Resistant to organic solvents
- Washable and tear resistant
- Hard wearing
- Temperature resistant from -20 °C to +120 °C

Thanks to these characteristics, AIRSILENT can be cut into solid or perforated shapes enabling the product to absorb sound in any position, even when installed vertically in walls or ceilings. The special composition of the foam with polyester base ensures that the product conforms to the fire behaviour standard FMVSS MOTOR VEHICLE SAFETY Std 302 and the fire protection index of the foam ensures that the product meets the requirements of the fire protection standards ISO 9017 and ISO 2345. AIRSILENT is also easy to install and can be fixed by adhesives, with screws or nails.

**FLAT AIRSILENT**
- Type: anthracite colour
- Thickness: 20 mm - 10 flat and 10 Egg-box shaped
- Size: 1.00 x 2.00 m sheets

**DECORATIVE FLAT AIRSILENT**
- Section view
- Same characteristics as Flat type
- Thickness: 20 mm - flat and 10 Egg-box shaped
- Size: 1.00 x 2.00 m sheets

**EGG-BOX SHAPED AIRSILENT**
- Thickness: 20 mm - 10 flat and 10 Egg-box shaped
- Size: 1.00 x 2.00 m sheets

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

**APLOMB 11**
- Description: multi-layered product with one layer of lead bonded with flexible, muffling and sound-absorbing materials.
- Composition:
- Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 3 mm thick.
- 0.35 mm, 4 kg/m² thickness lead layer
- Layer of special sound-absorbing polyester foam, 10 mm thick.
- Size: 1.00 x 2.00 m sheets
- Packing: Rolled in cardboard (0.5 x 0.5 x 1 m)
- Uses: Noise insulation for waste water piping in polyethylene or PVC. Wrapped around the pipes, lowers the noise level by 20 to 30 dB.
- Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz: 25 dB (ISO 140/3, ISO 717/1), Class 1 (I).
- Rw = 26.0 dB
- Materials used: PE 12 mm, Pb 0.35 mm, Trocellen 3 mm

**APLOMB 22**
- Description: multi-layered product with one layer of lead bonded with flexible, muffling and sound-absorbing materials.
- Composition:
- Layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, 3 mm thick.
- 0.35 mm, 4 kg/m² thickness lead layer
- Layer of anti-vibration polyethylene foam laminated with black embossed film, 3 mm thick.
- Size: 1.00 x 2.00 m sheets
- Packing: Rolled in cardboard (0.5 x 0.5 x 1 m)
- Uses: Soundproof cladding for pipes, walls and cabins.
- Uses: Noise resistance for waste water piping in polyethylene or PVC. Wrapped around the pipes, lowers the noise level by 20 to 30 dB.
- Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz: 25 dB (ISO 140/3, ISO 717/1), Class 1 (I).
- Rw = 24.5 dB
- Materials used: PE AL/CL1 3 mm, Pb 0.35 mm, Trocellen 3 mm

**APLOMB 22**
- Description: multi-layered product with one layer of lead bonded with flexible, muffling and sound-absorbing materials.
- Composition:
- Layer of polyethylene foam (anti-vibration) laminated with embossed black film 3 mm thick.
- 0.35 mm, 4 kg/m² thickness lead layer
- Layer of anti-vibration polyethylene foam laminated with black embossed film, 3 mm thick.
- Size: 1.00 x 2.00 m sheets
- Packing: Rolled in cardboard (0.5 x 0.5 x 1 m)
- Uses: Soundproof cladding for pipes, walls and cabins.
- Uses: Noise resistance for waste water piping in polyethylene or PVC. Wrapped around the pipes, lowers the noise level by 20 to 30 dB.
- Evaluation index, with a sample curve at 500 Hz, calculating the frequency range from 100 Hz and 3150 Hz: 25 dB (ISO 140/3, ISO 717/1), Class 1 (I).
- Rw = 24.5 dB
- Materials used: PE AL/CL1 3 mm, Pb 0.35 mm, Trocellen 3 mm

**TEST AIRBORNE SOUND INSULATION**

<table>
<thead>
<tr>
<th>Load (l/min)</th>
<th>Insulation</th>
<th>Isolation</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>95</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>200</td>
<td>106</td>
<td>54</td>
<td>52</td>
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</tbody>
</table>

**TEST AIRBORNE SOUND INSULATION WALL**

<table>
<thead>
<tr>
<th>Load (l/min)</th>
<th>Insulation</th>
<th>Isolation</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>50</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>200</td>
<td>68</td>
<td>54</td>
<td>14</td>
</tr>
</tbody>
</table>

**APLOMB ROLL**
- Description: single-layered product with one layer of lead bonded with flexible, muffling and sound-absorbing materials.
- Composition:
- Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 3 mm thick.
- 0.35 mm, 4 kg/m² thickness lead layer
- Layer of anti-vibration polyethylene foam laminated with black embossed film, 3 mm thick.
- Size: 1.00 x 2.00 m sheets
- Packing: Rolled
- Uses: Soundproof cladding for pipes, walls and cabins (when Class 1 product is required).
Flexible, open cell polystyrene-based polyurethane foam used for soundproofing.

**PHYSICAL-CHEMICAL CHARACTERISTICS**
- **Density**: 30 - 35 kg/m³
- **Colour**: Anthracite
- **Uniform cell structure**: resistant to air flow with consequent improvement in sound absorption
- **Weather resistance and reduced stability**: for enhanced shock absorption
- **Resistant to organic solvents**: tough and tear resistant
- **Heat resistant**:
- **Temperature resistant (free of gases -10 °C to +150 °C)**: thanks to these characteristics, AIRSILENT can be cut into ashlar or thick.

**AIRSILENT**
- Uses: sound proof cladding for pipes, walls and cabins
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, 3mm thick.
  - 3 mm, 4 kg/m³, weight head layer
  - Layer of anti-vibration polyethylene foam laminated with black embossed film, 3mm thick
  - Size: 100 x 200 x 0.20
  - Packing: Rolled in cardboard (0.2 x 0.2 x 1.00 m)

**APLOMB**
- Uses: sound proof cladding for pipes, walls and cabins
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, 3mm thick.
  - 4 kg/m³, 4 kg/m³, weight head layer
  - Layer of anti-vibration polyethylene foam laminated with black embossed film, 3mm thick
  - Size: 100 x 200 x 0.20
  - Packing: Rolled in cardboard (0.2 x 0.2 x 1.00 m)

**API-APLOMB**
- Uses: sound proof cladding for pipes, walls and cabins
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed metallic film, 3mm thick.
  - 4 kg/m³, 3 kg/m³, weight head layer
  - Layer of anti-vibration polyethylene foam laminated with black embossed film, 3mm thick
  - Size: 100 x 200 x 0.20
  - Packing: Rolled in cardboard (0.2 x 0.2 x 1.00 m)

**TEST AIRBORNE SOUND INSULATION**
- Uses: noise insulation for waste water piping in polyethylene pipes or PVC. Wrapped around the pipes, lowers the noise level or PVC. Wrapped around the pipes, lowers the noise level
- Uses: noise insulation for waste water piping in polyethylene pipes or PVC. Wrapped around the pipes, lowers the noise level
- Uses: noise insulation for waste water piping in polyethylene pipes or PVC. Wrapped around the pipes, lowers the noise level
- Uses: underlay and walls for houses, offices etc.

**PHYSICAL-CHEMICAL CHARACTERISTICS**
- **Composition**: Multi-layered product with one or more layers of lead bonded with flexible, muffling and sound-absorbing materials.
- **Resistance to organic solvents**: resistant to air flow with consequent improvement
- **Increased hysteresis and reduced elasticity**: in sound absorption
- **Resistant to air flow with consequent improvement**:
  - **Sound absorption - EN 20354**
  - **Sound absorption coefficient**
  - **Frequency (Hz)**
  - **Load**
  - **Reduction (dB)**

**Wall insulation**
- Uses: noise insulation for waste water piping in polyethylene pipes or PVC. Wrapped around the pipes, lowers the noise level
- Uses: noise insulation for waste water piping in polyethylene pipes or PVC. Wrapped around the pipes, lowers the noise level

**Spongy surface**
- Uses: sound proof cladding for pipes, walls and cabins
- Composition:
  - Layer of open-cell (sound-absorbing) polyurethane foam,
  - 12 mm with perforated aluminium film.

**Additional characteristics**
- **Flame class**: 1 (when tested according to EN 13501-1).
Airsilent: flexible open cell polyester-based polyurethane foams used for sound proofing.

**Physical-Chemical Characteristics**
- Density: 30 - 35 kg/m³
- Colour: Anthracite
- Uniform cell structure
- Resistant to air flow with consequent improvement in sound absorption
- Excellent flexibility and reduced stability for enhanced shock absorption
- Resistant to organic solvents
- Wash and tear resistant
- Heat resistant
- Temperature resistant (-50°C to +120°C)

Thanks to these characteristics, Airsilent can be cut into solid or perforated shapes making the product acoustically attractive even when used externally and in view. The special composition of the foams with polyester base ensures that the product is conforms to the fire behaviour standard FMVSS MOTOR VEHICLE SAFETY Std 302 and FMVSS 301.

**Flat Air Silent**
- Type: anthracite colour
- Thickness: 20 mm - 10 flat and 10 egg-box shaped
- Weight: 15 mm 29.4 kg/m², 40 kg/m³
- Weight: 10 mm 24.8 kg/m², 40 kg/m³
- Temperature resistant (-50°C to +120°C)
- Easy to cut
- Heat resistant
- Resistance to water
- Stretch and tear-resistant
- For enhanced shock absorption
- Increased hysteresis and reduced elasticity
- Resistant to air flow with consequent improvement in sound absorption
- OB type, bonded on one side with metallic embossed film
- K type: anthracite colour
- KP type: as K type bonded on one side with black embossed film

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

**Sound Absorption - EN 12453**
- Thickness: 20 mm - 10 flat and 10 egg-box shaped
- Frequency (Hz): 100, 250, 500, 1000, 2000, 4000, 8000
- Sound absorption coefficient

**Aplobomb**
- Multi-layered product with one or more layers of lead bonded with flexible, muffling and sound-absorbing materials.
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 2mm thick.
  - 0.35 mm, 4 kg/m² lead layer
  - Layer of anti-vibration polyethylene foam laminated with black embossed film, 3mm thick.
- Size: 1.00 x 1.50 m sheets
- Packing: Rolled in cardboard (0.20 x 0.20 x 1.00 m)
- Uses: sound proof cladding for pipes, walls and cabins
- Uses: underlay and walls for houses, offices etc.

**Aplobomb 11**
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 2mm thick.
  - 0.35 mm, 4 kg/m² lead layer
  - Layer of special (sound absorbing) polyester foams, 15 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 water piping in polyethylene piping and 3150 Hz (ISO 140/3, ISO 717/1):
- Sound absorption 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):

**Aplobomb 22**
- Composition:
  - 2 mm, 4 kg/m² lead layer
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 2mm thick.
- Size: 1.00 x 1.50 m sheets
- Packing: Rolled in cardboard (0.20 x 0.20 x 1.00 m)
- Uses: sound proof cladding for pipes, walls and cabins
- Uses: underlay and walls for houses, offices etc.

**Aplobomb AL/CL1**
- Composition:
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 2mm thick.
  - 0.35 mm, 4 kg/m² lead layer
  - Layer of polyethylene foam (anti-vibration), laminated with embossed black film, 3mm 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.

**Wall Insulation**
- Tests carried out at ENSFS (EN 12453) on lead layer (SWISS REGULATORY AUTHORITY)

**Airsilent Aplomb**
- Section view
- Section view

**Airsilent Sound Absorption - EN 12453**
- Thickness: 20 mm - 10 flat and 10 egg-box shaped
- Frequency (Hz): 100, 250, 500, 1000, 2000, 4000, 8000
- Sound absorption coefficient

**Aplobomb AL/CL1**
- Composition:
  - 2 mm, 4 kg/m² lead layer
  - Layer of polyethylene foam (anti-vibration) laminated with embossed black film, 2mm thick.
- Size: 1.00 x 1.50 m sheets
- Packing: Rolled in cardboard (0.20 x 0.20 x 1.00 m)
- Uses: sound proof cladding for pipes, walls and cabins
- Uses: underlay and walls for houses, offices etc.
**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):**

\[
R_w = 27 \text{ dB}
\]

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

**APLOMB 2**

- 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

- 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):**

\[
R_w = 27 \text{ dB}
\]

**SUMMARY**

**AIRSILENT (sound absorption)**

Flexible, open cell polyester based polyurethane foam.

**AIRSILENT 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.

**AD (adhesive):**

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

Composition:
- Layer of open-cell polyurethane foam, variable thickness
- 0.35 mm, 4 kg/m³ weight lead layer
- Layer of open-cell polyurethane foam, variable thickness

Size: 1.00 x 2.00 m sheets

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**

Composition:
- Layer of open-cell polyurethane foam, 10 mm thick
- 0.35 mm, 4 kg/m³ weight lead lamina
- Layer of 0.1 mm thickness high density polyurethane foam

Also available in 10+10 mm and 15+15 mm and 25+25 mm.

Size: 1.00 x 1.50 m sheets

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

**APLOMB 1/B**

Composition:
- Layer of polyurethane foam, 10 mm thick
- 0.35 mm, 4 kg/m³ weight lead lamina
- Layer of high density polyurethane foam

Also available in 10+10 mm and 15+15 mm and 25+25 mm.

Size: 1.00 x 1.50 m sheets

Uses: used for visible sound insulation

**Summary**

**AIRSILENT (sound absorption)**
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.

**AD (adhesive):**
All the above listed products can be supplied with self-adhesive on request.

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**AIRSILENT**
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World-leading supplier of long lasting insulation foams