Sound absorber
Applications
Ceilings and walls, sails and velums, suspended canopies

- **Acoustic efficiency:** reduces reverberation effect up to four-fold.
- **Durable without maintenance:** thanks to its high resistance to tension, abrasion, impacts and its ability to withstand moist and chlorine environments.
- **Creative design:** flexibility, complex shapes, large spans, printability.
- **Health & environment:** Greenguard gold and french A+ certification for better air quality. Lightweight for lower environmental impact (LCA).

A thin and flexible sound absorber for innovative acoustic solutions
Timeless colours

White reflects and prolongs the light, thereby optimising lighting. As a source of contrast, black absorbs the light and sculptures volumes. Soft and quiet, green and cotton colours evoke architectural materials: stone, concrete, steel, wood. Burst of colour express the desire to highlight the space.

Kilimandjaro 7005-6642
Alaska 7005-6711
Granite 7005-50222
Odessa 7005-6842

Coton 7005-50219
Bamboo 7005-50221
Red 7005-50224
Lux 7005-51045

Other colours available on request (consult us)

Place this page in front of a light source to witness Alphalia Silent Aw’s translucence and whiteness.

Alphalia Silent Aw Lux - A unique combination of acoustic and lighting comfort.
• Absorbs 65% of sound and transmits 41% of light.
• Protects from solar heat (-59%) and glare beneath a glass roof or facade.

The colours and textures represented in this document are provided as a reference only.
Optimise acoustic comfort

Alphalia Silent Aw composite material has exceptional acoustic performance.

Practical cases - Alphalia Silent Aw without additional absorbent reduction in reverberation time after Alphalia Silent Aw treatment (reports available on request)

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.7 s</td>
<td>1.8 s</td>
<td><strong>76.6%</strong></td>
</tr>
<tr>
<td>6.9 s</td>
<td>2.5 s</td>
<td><strong>63.7%</strong></td>
</tr>
<tr>
<td>4 s</td>
<td>1.6 s</td>
<td><strong>60%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>72%</strong></td>
</tr>
</tbody>
</table>

Simply tensioned Alphalia Silent Aw

Freely tensioned Alphalia Silent Aw with an air gap is a solution that sets itself apart through:
- Avoiding the cost of a foam-, fibre- or wool-type additional absorbent and the drawbacks associated with such products,
- Efficient absorption throughout the sound frequency range, including low frequencies. This performance characteristic enables the requirements of multiple buildings to be met: sports halls, multipurpose halls, etc.

Alphalia Silent Aw with air gap and no additional absorbent

Absorption coefficient (ISO 354)

<table>
<thead>
<tr>
<th>Freq. (Hz)</th>
<th>Alphalia Silent Aw + 100 mm air layer</th>
<th>Alphalia Silent Aw + 400 mm air layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>0.15</td>
<td>0.55</td>
</tr>
<tr>
<td>250</td>
<td>0.40</td>
<td>0.75</td>
</tr>
<tr>
<td>500</td>
<td>0.75</td>
<td>0.60</td>
</tr>
<tr>
<td>1000</td>
<td>0.85</td>
<td>0.65</td>
</tr>
<tr>
<td>2000</td>
<td>0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>4000</td>
<td>0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>aw*</td>
<td>0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>NRC*</td>
<td>0.65</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Alphalia Silent Aw combined with an absorbent

Alphalia Silent Aw can be combined with a conventional absorbent to meet specific needs absorption requirements.

Alphalia Silent Aw therefore enhances the absorbent’s performance and reduces the thickness of the complex.

<table>
<thead>
<tr>
<th>Freq. (Hz)</th>
<th>Alphalia Silent Aw against 45 mm Rockwool (density 28 to 36 kg/m³)</th>
<th>Alphalia Silent Aw against 100 mm Rockwool (density 28 to 36 kg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>0.30</td>
<td>0.80</td>
</tr>
<tr>
<td>250</td>
<td>0.80</td>
<td>1.00</td>
</tr>
<tr>
<td>500</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>1000</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>2000</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>4000</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>aw*</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>NRC*</td>
<td>0.95</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Yw: Weighted acoustic absorption coefficient
NRC: Noise reduction coefficient ASTM C244-90a
Reports on ISO 354 ceiling, suspended panel, curtain and baffle tests are available on request.
*Results subject to slight variations.
Choose the installation system best suited to your project

Unlike conventional materials, the unmatched flexibility, lightness and finesse of Alphalia Silent Aw materials allow:
• unrestricted freedom of implementation,
• fulfillment of several needs: acoustic, design, light, solar protection, strength,
• fixed or moving lightweight acoustics for adapting to a need and optimising structural usage.

Tensioned sails
Lightweight, durable architecture.
Solar protection under a glass roof.

Fixed or retractable canopies
An alternative to flat surfaces.
In fixed or retractable versions.

Cladding of components
Acoustic envelope adapting to all component or structural shapes.

Baffles
Custom acoustic baffles.
Glass roof blinds for solar protection.

Tensioned ceilings
Large flat or curved, continuous surfaces.
Quick installation and removal.

Wall & ceiling panels
Custom dimensions, shapes and printing.

Behind openwork facing
Tensioned or stapled behind an openwork element.

Luminous ceilings
Acoustic objects for lighting based on Alphalia Silent Aw Lux.

Tensioned walls
Flat or curved, continuous, absorbent surfaces.
Printing or image screening.

Curtains & screens
Easy to install, no heavy operation required.
Projection screens.

Sliding panels
In front of glazing or as separating partition.
Movable to adapt acoustics to room usage.

Printed panels
HD restitution, optimum colour rendition.
Alphalia
Silent Aw

- **Technical properties**
  - **Weight**: 620 g/m²
  - **Width**: 270 cm (Kilimandjaro 6642 in 270 cm & 135 cm)

- **Physical properties**
  - **Tensile strength (warp/weft)**: 250/220 daN/5 cm
  - **Tear strength (warp/weft)**: 25/25 daN
  - **Impact resistance**: Class 1A (Excellent after 36 impacts at 60km/h)
  - **Micro organism resistance**: Degree 0, excellent
  - **Extreme working temperatures**: -30°C / +70°C

- **Flame retardancy**
  - **Euroclass**: B-s2,d0/EN 13501-1

- **Solar and light properties**
  - **Visible reflection Rv**: 90% / Lux (Translucent)
  - **Visible transmission Tv**: 7% / 41%
  - **Internal Solar Factor Gw**: 0,31 / 0,41

- **Management systems**
  - **Quality**: ISO 9001
  - **Environment**: ISO 14001

- **Certifications, labels, garanties**

- **Tools and services**
  - Making-up guide & cleaning instructions available on demand
  - Special colour production on demand

Material strength characteristics quoted are average values subject to a ±5% tolerance.
The buyer of our products is fully responsible for their application or their transformation concerning any possible third party. The buyer of our products is responsible for their implementation and installation in compliance with standards, codes of practice and safety regulations in force in destination countries.
To ensure warranty effectiveness, refer to warranty certificate concerned available on demand.
The values quoted above represent results of tests performed in compliance with common design practices and are provided for information only to enable customers to make the best use of our products. Our products are subject to changes prompted by technological developments. We reserve the right to modify their characteristics at any time. The buyer of our products is responsible for checking the validity of the above data.

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