

SOLARIS

Acoustic Textile Solutions



Acoustic comfort is a fundamental requirement to guarantee a condition of well-being within a public or private space.

The need to **understand** who stands before us without effort or to **communicate** with the person we are speaking to without raising our voices, are signs of civilization and set a new **standard** for the environments in which we enjoy spending our time.

A restaurant that cares about the freshness of its produce will also want to adjust the acoustics of the dining room to ensure customers have a pleasant experience and leave satisfied, or to encourage them to stay for an extra drink. Similarly, in our new home, we'll want to enjoy a quiet, pleasant chat with friends, without the annoying rumble caused by uncontrolled **reverberation**.



What is reverberation time?

In acoustics, **reverberation** is the phenomenon of sound waves reflecting off the surfaces of a room, and the reverberation time (T_r) is the duration for which sound persists within that room.

When reverberation time is too long, sound waves within the space overlay and mix with each other, making the environment uncomfortable.

An obvious **consequence**, for example, is the inability to understand the words of the person standing next to us with whom we are talking. This echo is then further accentuated by the need to raise one's voice to make oneself understood. Obviously, in a crowded room, this tendency has a negative impact on the comfort of people.

OUR SOUND-ABSORBING SOLUTIONS

IMPROVE ACOUSTIC COMFORT AND CREATE MORE COMFORTABLE AND INVITING ENVIRONMENTS

BENEFITS OF SOUND-ABSORBING SOLUTIONS



UNDERSTAND
WORDS BETTER



IMPROVE
ATTENTION
& CONCENTRATION



REDUCE
STRESS



PROMOTE
INTIMACY
& CALM



PROMOTE
INTIMACY
& CALM



ENCOURAGE
THE DESIRE
TO **STAY LONGER**
IN A SPACE



Sound-absorbing blinds meet the specific requirements of acoustic absorption.

At **Fondaco dei Tedeschi – Venice**, Solaris' blinds have **reduced the reverberation by 4 times**, making the environment very pleasing.



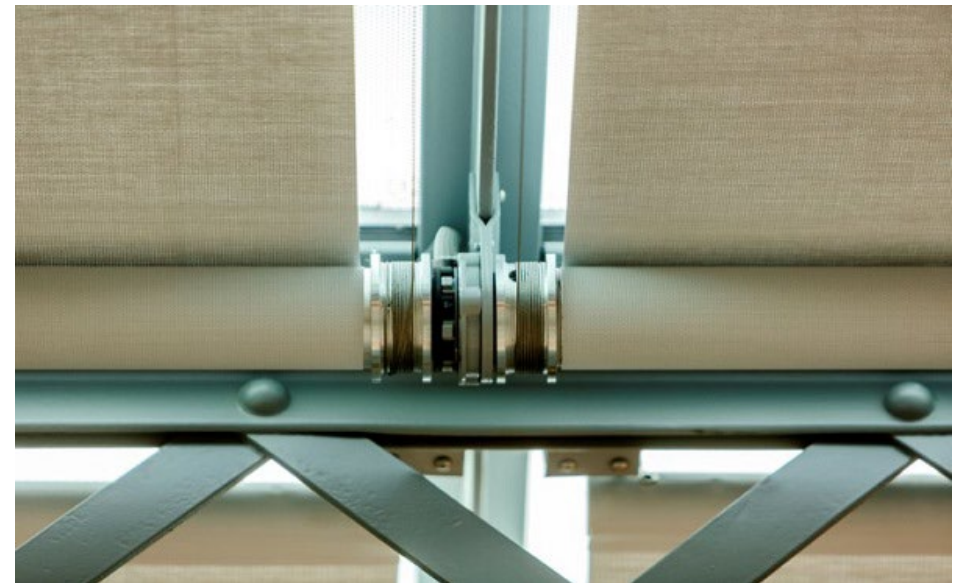
«Fondaco dei Tedeschi - Venice»

Solaris' sound-absorbing fabrics let the light illuminate the room: they guarantee a proper light and sound management.

We used the SomfyRTS **wireless technology**, which gives to the concept of home **automation** a whole new meaning.

Our blinds are motor-powered with Somfy low-noise engines for an accurate yet **silent motion**.

With only one action, you **protect your privacy**, you **defend yourself from solar rays** and **improve the environment's acoustic**.



Close-up of a Fondaco's sound-absorbing blind

At Triennale of Milan “Bovisa”, Solaris has created and installed sound-absorbing roller blinds using Acusticfabric and SomfyRTS engines.

Using sound-absorbing blinds, we **eliminated the reverberation** caused by the **glass surfaces**. The result is a warm and pleasing atmosphere.

They fit perfectly in this prestigious architectonical context: they are installed in a recess in the false ceiling.



«Restaurant at Triennial of Milan»

Solaris' roller blinds are very versatile, as you can see in the picture.

At **Gadames' Events Center**, we installed **trapezoidal** and **sloping blinds**.

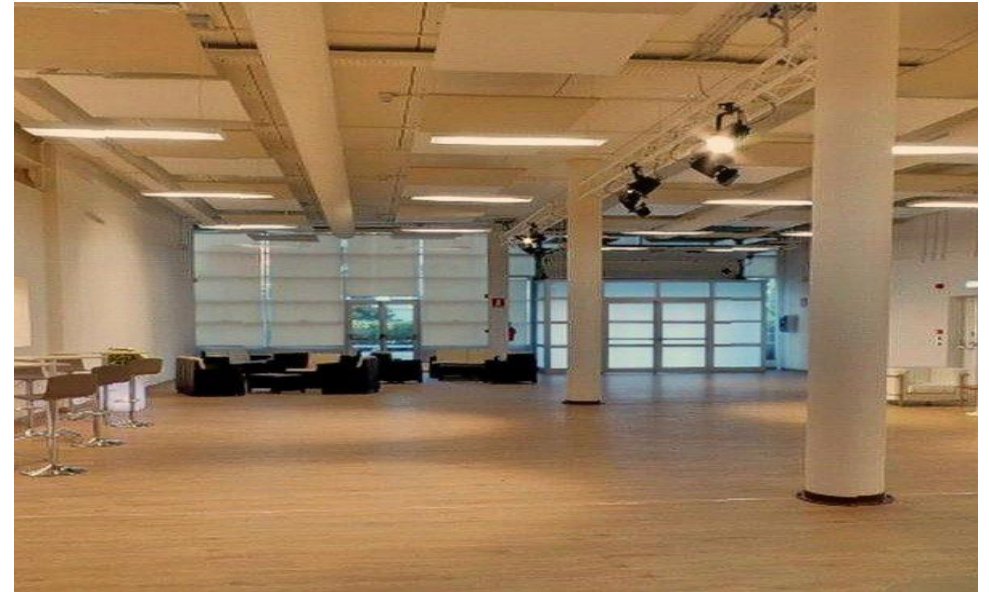
This modern location is perfect for this type of solution, thanks to its design that improves the **quality of sound**.



«Gadames 57 - Milan»

In order to satisfy companies' necessities to improve **acoustic comfort**, Solaris designs and makes panels with sound-absorbing fabric, paired with a **particular sound-absorbing pad**.

Panels can have regular or irregular shapes, they can be hanged vertically or horizontally, and you can choose from a wide range of colors.

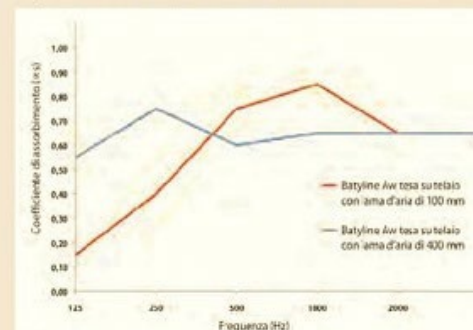


Gadames 57 – specific sound-absorbing panels

The chart on the right shows the data of **Batyline AW** fabric used as a blind or as a simple stretched cloth. The table shows the fabric's **absorbing efficiency at different frequencies**.

This enables to satisfy many types of needs, such as gymnasiums, multi-purpose rooms, etc.

Batyline Aw con lama d'aria di 100 e 400 mm



Freq. (Hz)	Batyline Aw + lama d'aria 100 mm	Batyline Aw + lama d'aria 400 mm
125	0.15	0.55
250	0.40	0.75
500	0.75	0.60
1000	0.85	0.65
2000	0.65	0.65
4000	0.65	0.65
aw*	0.65	0.65

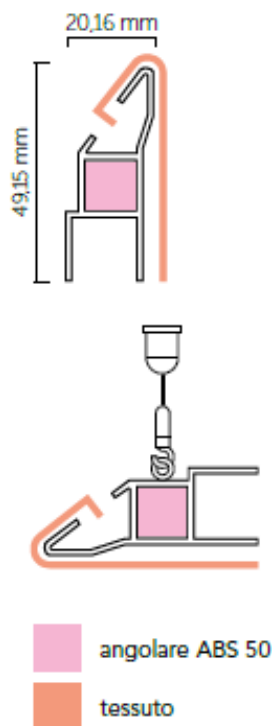
Sound absorbing can be improved using sound-absorbing panels, because the fabric is paired with another sound-absorbing material: the level of acoustic absorbing can be very high.

Freq. (Hz)	Batyline Aw + LR 45mm (densità da 28 a 36 K/m³)	Batyline Aw + LR 100 mm (densità da 28 a 36 K/m³)
125	0.30	0.80
250	0.80	1.00
500	1.00	1.00
1000	1.00	1.00
2000	0.95	0.95
4000	0.90	0.90
aw*	1.00	1.00



TEX SLIM – EDGE profile

TEX SLIM - EDGE KL+ is an indoor profile designed for creating full-surface wall or suspended graphics. The 40° angled groove for housing the casing ensures that the fabric fixing mechanism is concealed from view. In case of wall-mounted applications, the product can simply be fixed in place using a few wall plugs. The product is ideal for suspended installations intended for sound absorption.



TEX SLIM - EDGE

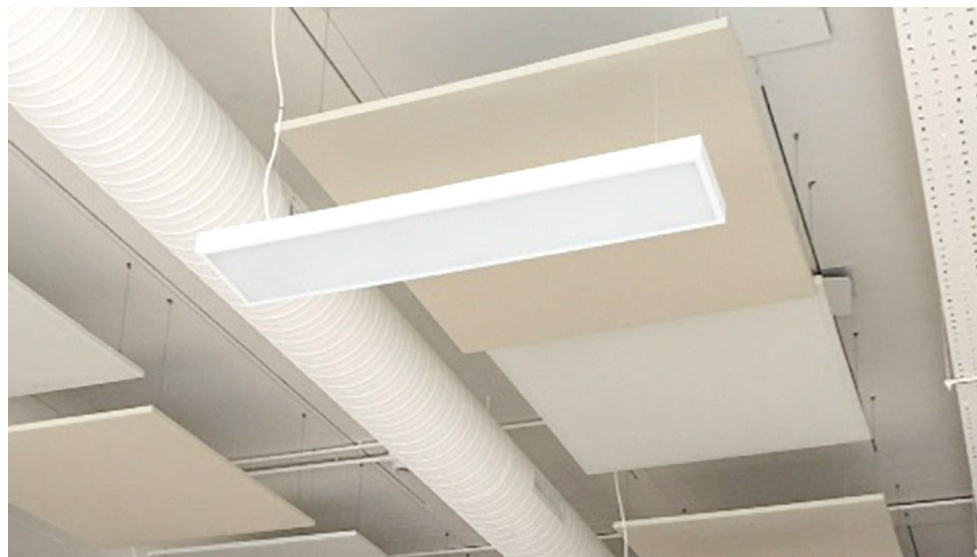
For suspended installations, panels are secured to the roof using steel cables. The structure is self-supporting up to approximately **2 x 1.5 metres**. For installations larger than this, please consult Solaris's specialist staff. Use the SX30 profile as an internal reinforcement frame, securing it to the frame with self-tapping screws. This profile cannot be calendered.



TEX 25 – EDGE profile



TEX 25 - EDGE



For suspended installations, panels are secured to the roof using steel cables.

The structure is self-supporting up to approximately **2,5 x 2 metres**.

For installations larger than this, please consult Solaris's specialist staff.

Use the SX30 profile as an internal reinforcement frame, securing it to the frame with self-tapping screws.

This profile cannot be calendered.

Pannello 50 ALL EDGE



Panel made of a sound-absorbing or sound-transparent fabric combined with a 50 mm self-extinguishing polyester foam pad

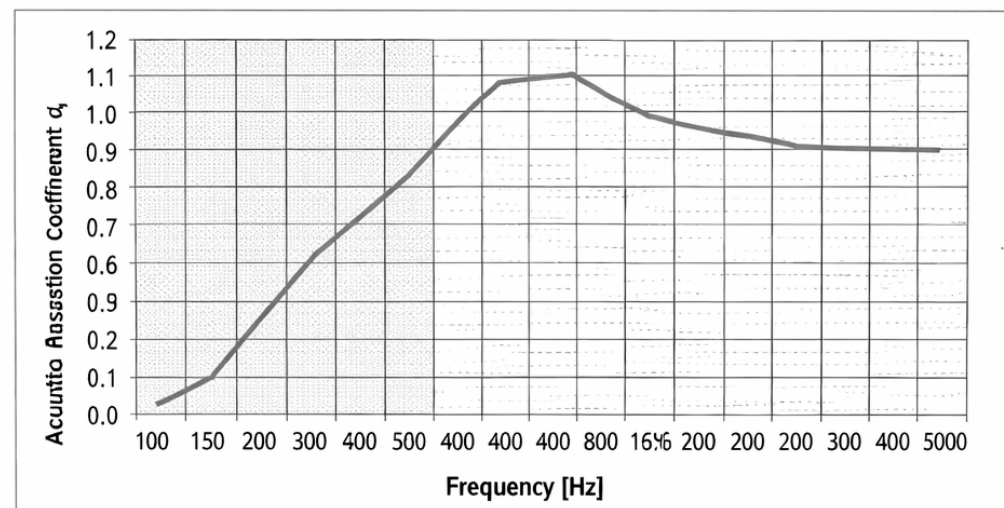
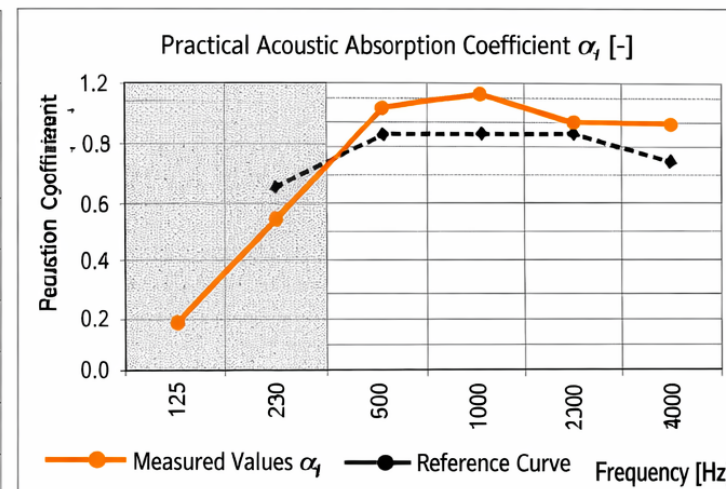
Panels can be installed on a vertical wall or on the roof



Pannello 50 ALL EDGE

The image shows the acoustic diagram of the *SOLTIS TOUCH* fabric bonded with a 50 mm sound-absorbing mat.

Frequency [Hz]	R_s [-]
Frequency	R_s [-] Acoustic coefficient (0, 1)
125	0,15
250	0,55
500	0,90
1000	1,00
2000	0,90
4000	0,90



The measurement of acoustic absorption coefficients in a reverberation chamber was carried out in accordance with UNI EN ISO 354:1/2003.

The calculation of the evaluation index α_i and the determination of the acoustic class were performed in accordance with UNI EN ISO 11654:1998.



Solaris Architettura offers bespoke products, providing a unique solution for every requirement. Solaris applies the same level of care to both standard and customized projects.

We create unique solutions.

Our multidisciplinary approach requires to understand different technical and aesthetic languages, assessing both objective and subjective factors, including the different functions of the spaces under consideration.

We analyze the light and thermal dynamics of spaces throughout the day, across weeks and through the seasons.

Solaris: much more than just a blind!

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