



# Acoustics Focus





## About Acoustics

How we feel in a room is closely related to the quality of the acoustics.

Poor acoustics can make a room feel empty and cold. Increased noise levels can affect hearing and understanding and have a negative impact on work efficiency.

For over 60 years, Silent Gliss have improved living and working environments and offer a wide range of systems and fabrics aimed at optimising room acoustics by:

- Reducing unwanted noise
- Promoting speech intelligibility
- Promoting communications and understanding
- Avoiding noise pollution in offices

All Silent Gliss acoustic fabrics are tested according to ISO/EN standards with some of them specifically developed to meet acoustic requirements.

Trust us to deliver the highest quality.

[www.silentgliss.at](http://www.silentgliss.at)

[www.silentgliss-cee.com](http://www.silentgliss-cee.com)

[www.silentgliss-russia.com](http://www.silentgliss-russia.com)

Silent Gliss GesmbH  
Showroom & Export  
Stubenring 6  
A - 1010 Wien

Tel. +43 (0)1 513 16 77  
Fax +43 (0)1 513 16 77-88  
[info@silentgliss.at](mailto:info@silentgliss.at)

Silent Gliss GesmbH  
Jochen-Rindt-Straße 1  
A - 1230 Wien

Tel. +43 (0)1 615 02 73  
Fax +43 (0)1 615 02 73-88  
[info@silentgliss.at](mailto:info@silentgliss.at)

Silent Gliss Representative office in Moscow  
Nizhnaya Syromyatnicheskaya, 10/2,  
office 22.3/1  
105120 Moscow / Russia

Tel. +7 965 264 44 89  
[info@silentgliss-cee.com](mailto:info@silentgliss-cee.com)



Colorama® 1  
Col. 410

$\alpha_w$  0,10–0,15



Ecoscreen  
Col. 410

$\alpha_w$  0,15



Reflex  
Col. 111

$\alpha_w$  0,25



Treviscreen  
Col. 410

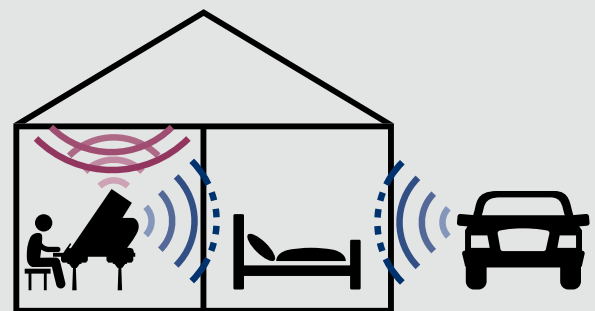
$\alpha_w$  0,25

## Reverberation Time

Silent Gliss fabrics help improve room acoustics by reducing sound by influencing the reverberation time (the time in seconds it takes to decrease noise by 60dB).

Benchmarks for good reverberation times are:

- Office/classroom/conference room: 0.5 seconds
- Theatre: 1 second
- Concert Hall: 2 seconds
- Church: 3 seconds



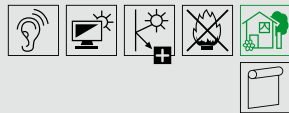
■ Room acoustics (internal acoustic quality)

■ Building acoustics (reduce external noise sources)





Ecoscreen



Treviscreen



Colorama® 1



Reflex




**Ecoscreen** – A polyester fabric with screen characteristics and a special two-fibre weaving for a white backing to optimise energy efficiency and external view. Ecoscreen is PVC-, lead- and formaldehyde-free as well as being fully recyclable. It is 325cm wide for large blinds.

**Treviscreen** – PVC-free screen made with Trevira CS. With a fabric width of 320cm and reliable hanging characteristics, this fabric is an ideal choice for large roller blinds.

**Colorama® 1** – The best-selling transparent Trevira CS fabric. It has a uniform and stable weave which makes it ideal for stiff and soft fabric applications. Available up to 340cm wide with an extensive colour range, it is extremely versatile.

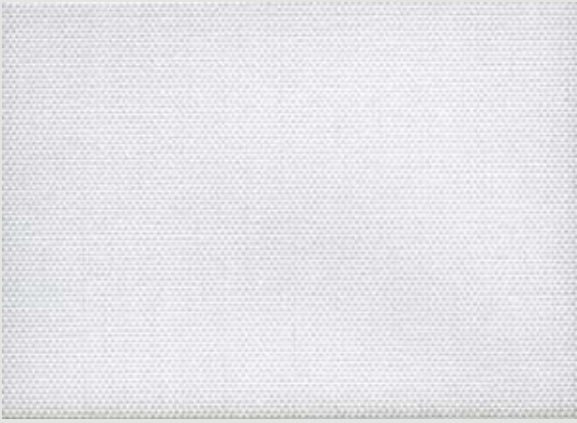
**Reflex** – Aluminium backed fabric which can be used for soft and stiff applications. Suitable for curtains and roller blinds, Reflex is a high performer with regard to heat and light control. The soft fabric can even withstand regular dry cleaning.



Acoustic properties tested  
(with : outstanding performance)

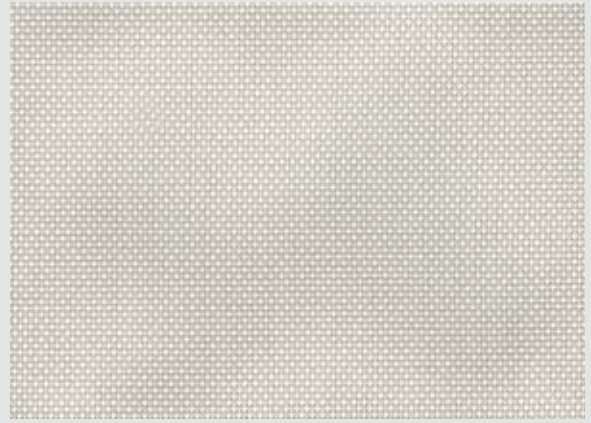


Optimised for workstations



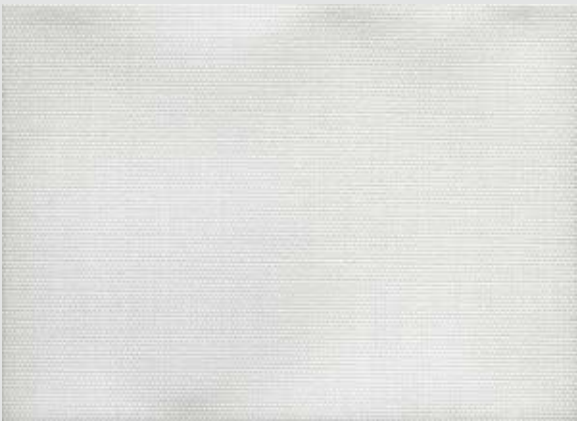
Multi Visio  
Col. 01

$\alpha_w$  0,30



Lightscreen  
Col. 2

$\alpha_w$  0,30



Freshtex Vision  
Col. 19

$\alpha_w$  0,30–0,50



Deep  
Col. 02

$\alpha_w$  0,30–0,55

## About the Effect

The sound absorption coefficient ( $\alpha_s$ ) is measured in a reverberation chamber according to DIN EN ISO 354. The  $\alpha_w$  value is the average of different frequency layers.

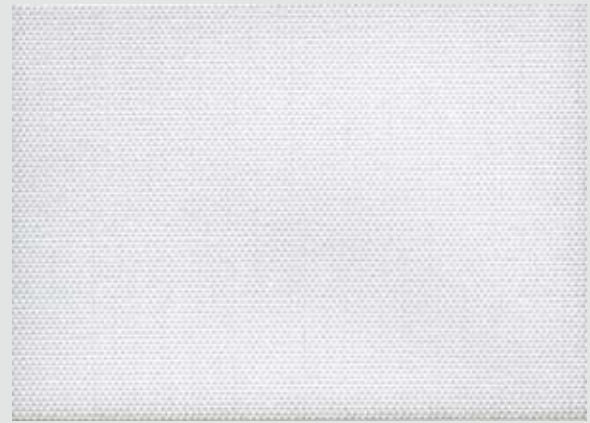
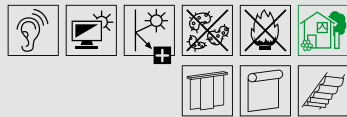
In addition to the fabric texture, the make-up and distance from the wall have a significant influence on the acoustic effect. For room dividing systems (free hanging fabric), the absorbance values are not relevant. In simplified terms, the heavier and thicker the curtain fabric, the higher the  $\alpha_w$  value.

Of particular interest are fabrics which feature a high transparency in relation to acoustic effectiveness since this allows maximum light and views without compromising acoustic performance.

Please note that the acoustic effect has to be in line with needs such as weight, transparency and function of the curtain system.



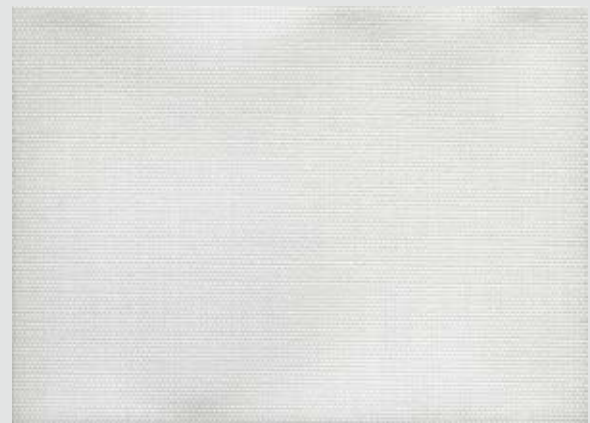
Lightscreen



Multi Visio



Deep



Freshtex Vision



**Lightscreen** – Despite a weight of only 315 g/sqm, this screen fabric offers the same advantages as regular PVC screens. Ideal for long roller blind applications where weight is a consideration.

**Deep** – Most versatile blackout fabric with wonderful tactile properties. One of the world's first woven blackout fabrics without any additional backing. Usable for soft applications like Silent Gliss Wave curtains but also suitable for roller blinds. At 290cm wide it is a fabric highlight.

**Multi Visio** – Versatile fabric for all stiff applications. Specifically recommended for the Silent Gliss Vertical Waves. Also suited for laser-cut applications and digital prints.

**Freshtex Vision** – One of several Freshtex fabrics with a patented air cleaning treatment catabolising bad odours or harmful molecules. Semitransparent and with a great variety in colours. Suitable for a wide variety of situations.

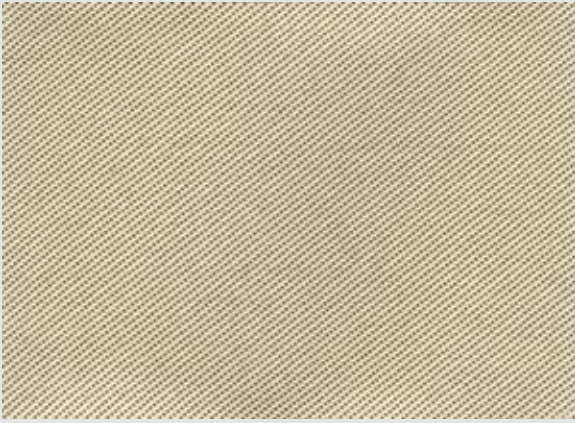


Freshtex for active air improvement

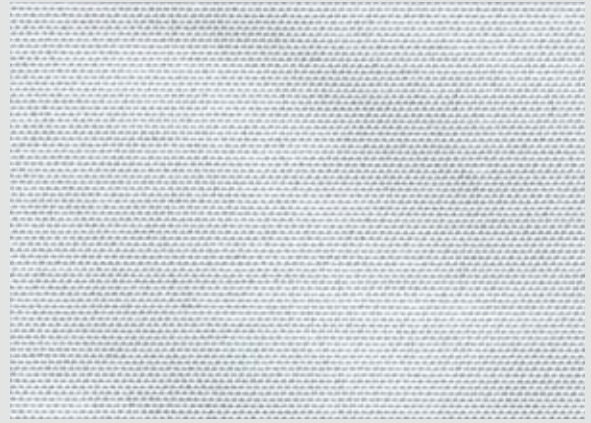


Antimicrobial





Freshtex Dimout  $\alpha_w$  0,40–0,60  
Col. 09



Alutex  $\alpha_w$  0.45–0,60  
Col. 111



Sunset  $\alpha_w$  0,45–0,60  
Col. 37



Function  $\alpha_w$  0,60  
Col. 01

## Frequencies and Pitches

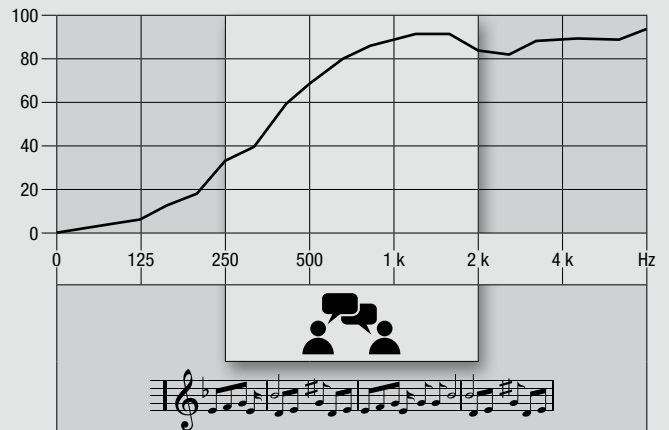
Our hearing is particularly sensitive in the frequency range of human speech – between 250Hz and 2000Hz. Therefore, this range is key when it comes to acoustic measurement and Silent Gliss fabrics are selected to be particularly effective in this area.

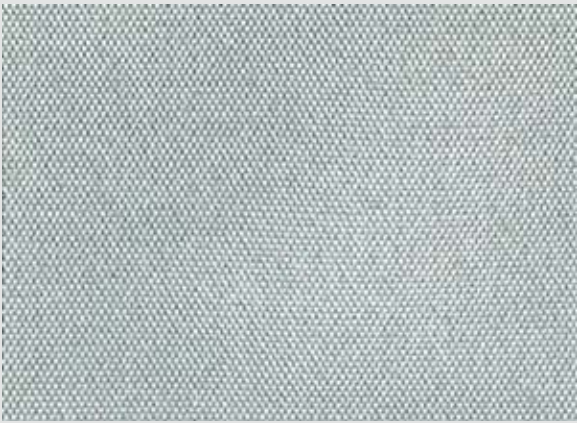
Professional acousticians evaluate the specific absorbance values for each frequency ( $\alpha_s$ ).

Value 0 (or 0%) = no sound absorption, for example glass or concrete.

Value 1 (or 100%) = complete sound absorption.

% Example: Sound absorption of Silente 20





Alutex

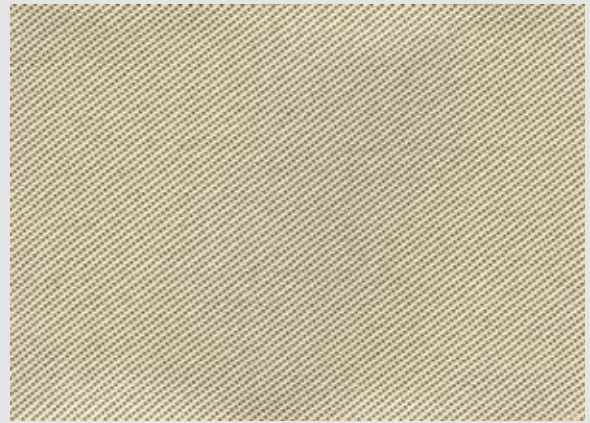


Function



**Alutex** – One of the best selling aluminium-backed fabrics from Silent Gliss. Technical fabric with high reflection properties whilst still retaining the look of a fabric. Particularly suitable for windows exposed to high glare.

**Function** – A vertical blind fabric specifically woven in 8.9 and 12.7cm louvres for optimal hanging performance and precise overlapping. Available in 14 modern colours.



Freshtex Dimout



Sunset



**Freshtex Dimout** – Freshtex fabric with a patented air cleaning treatment catabolising bad odours or harmful molecules. The proven weaving structure ensures perfect hanging with Silent Gliss Wave and Wave XL curtain heading systems. It is washable at 60 °C which makes it a favourite application in sensitive areas.

**Sunset** – A beautiful and tactile soft dimout fabric with the same colour on both sides. Proven for Silent Gliss Wave applications. A black yarn woven between the two sides offers excellent dimout performance. Functional but with a wonderful satin touch and feel.





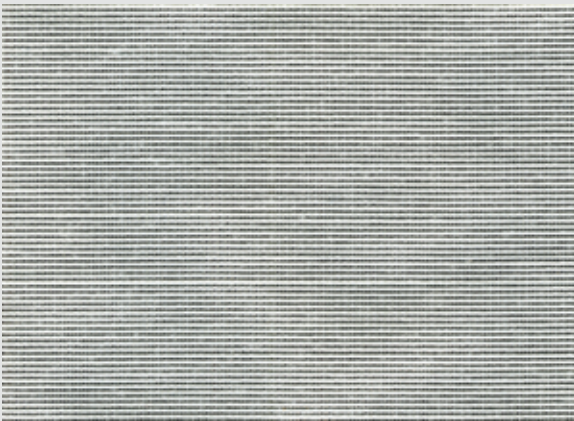
Jumbotex  
Col. 900

$\alpha_w$  0,60



Colorama® 2  
Col. 410

$\alpha_w$  0,40–0,65



Silente 20  
Col. 1

$\alpha_w$  0,55–0,60



Silente 10  
Col. 1

$\alpha_w$  0,55–0,65



## In Practice

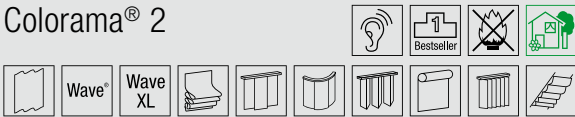
Curtains as an acoustic measure have the advantage that they are variable depending on whether they are open or closed. They are flexible and can be adapted to different types of use (lecture, music or vocals).

## Good to Know

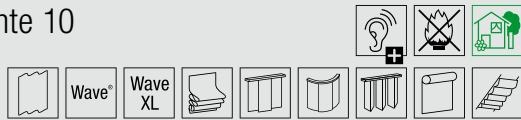
1. The higher the  $\alpha_w$  value, the greater the effectiveness.
2. It is important to note the individual frequencies for optimum acoustics.
3. The greater the distance from the wall of the fabric (up to max. 30cm) the more deeper frequencies are reduced.
4. The deeper the fold the more the sound is absorbed, (which makes Silent Gliss Wave and Wave XL ideal for acoustic environments).
5. The fabric is at its most effective in the corner of a room.



### Colorama® 2



### Silente 10

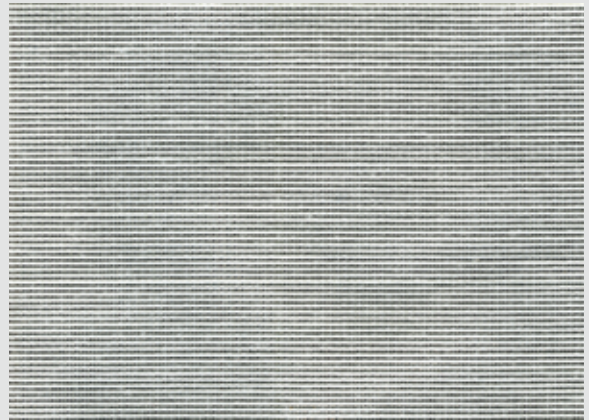


**Colorama® 2** – The epitome of versatility and sophistication. The uniform and stable weave, wide width of 340cm and extensive colour range make it a logical first choice. Colorama 2 is the most successful fabric of Silent Gliss over the last 30 years. Antibacterial and aluminium-backed versions are also available.

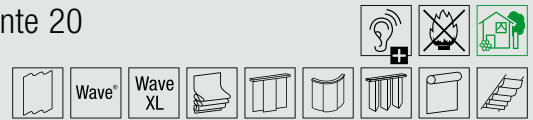
**Silente 10** – Beautiful transparency combined with impressive acoustic properties. Silente is the first premium acoustic fabric of its kind which is suitable for blinds and curtains!



### Jumbotex



### Silente 20



**Jumbotex** – With the unreached width of 460cm this fabric is ideally suited for very large roller blinds. The structure of Jumbotex also gives good acoustic characteristics.

**Silente 20** – Beautiful transparency combined with impressive acoustic properties. Silente is the first premium acoustic fabric of its kind which is suitable for blinds and curtains!



Flame retardant



Comes with third-person certification and/or special sustainability characteristics