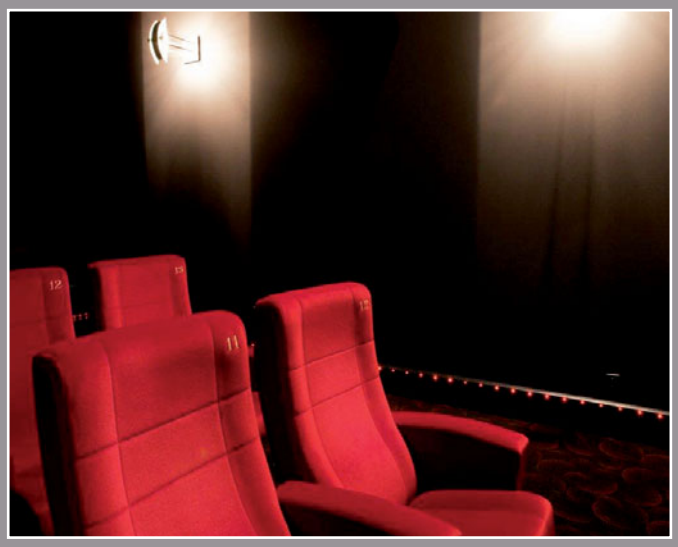
clipso sound®

Acoustic comfort for your ears!



clipso
technical fabrics

Introduction

Noise pollution is today recognised by the scientific community as being a source of daily discomfort and stress, whether in public or private spaces. It has a significant impact upon health and performance.

This is one of the reasons for which there is an increasing number of regulations regarding acoustics.

Good acoustics are not the result of chance and require the kind of know-how and expertise that **clipso** can provide.
Thanks to the specially developed coverings for ceilings and walls, **clipso** contributes to the good acoustics of your environment and thus provides a source of comfort and wellbeing to which we all aspire, with good reason, in our daily lives.

Architectural firm (Belgium) - Installation: Mona Visa
Architect: Architextuur-Thomas Coucke

How can you improve the acoustic performance of your premises?

Restaurant (Belgium) - Installation: Mona Visa
Architect: Redline Projects

Two aspects can be taken into consideration in this area:
• Acoustic insulation concerning the building: construction materials, partitions, windows, etc.
• The acoustic absorption which applies to different rooms and which influences the propagation of sound in these rooms.

It is regarding this second aspect that **clipso** acoustic coverings come in.

What are the important parameters in terms of acoustic improvement?

Reception room (Israel) - Installation: Glarus Ltd

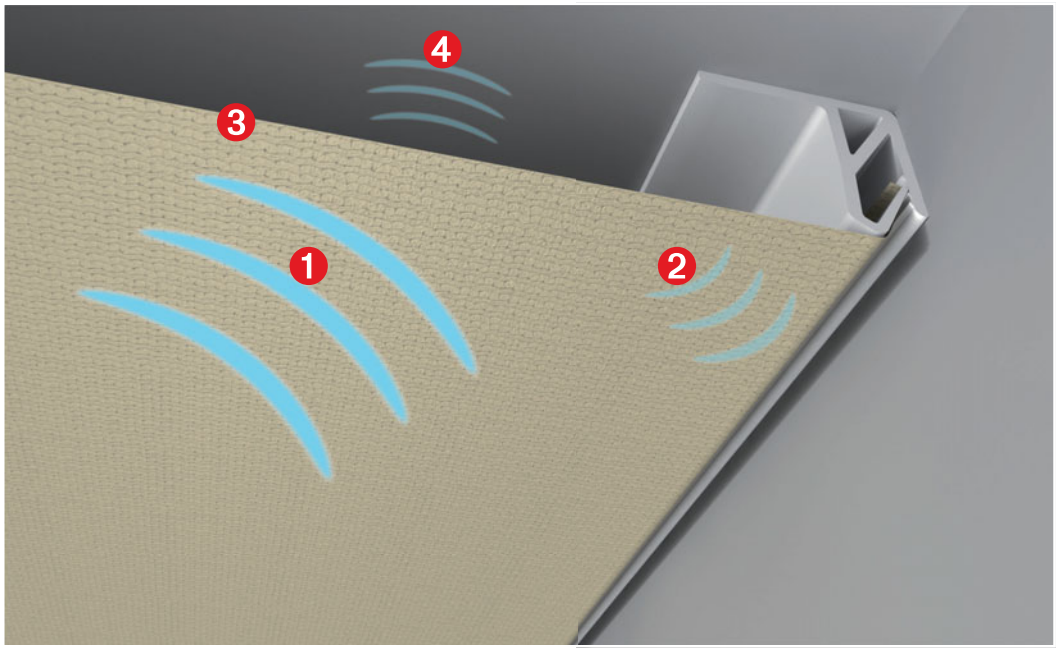
To achieve good results and acoustics, several approaches must be involved:
• The level of sound pressure: the noise level measured in dB (decibels), the best-known concept to the general public:
• The reverberation time: the amplitude of a room's echo;
• Spoken intelligibility: ease of understanding verbal exchanges;
• Acoustic insulation: amount of sound not transmitted from one room to another.

clipso: an optimal acoustic asset

clipso coverings together with acoustic insulators provide an excellent performance. Thus an adapted acoustic absorption makes the space appropriate for its use. This avoids the unpleasant effects caused by a loss of bearings, poor intelligibility and the 'cocktail party effect'.

What exactly is the acoustic absorption coefficient?

When a sound wave meets a material, energy disperses as follows: part of it is reflected, another part is absorbed into the material and a third part passes through the material.



1 The start of the acoustic wave **2 Sound is reflected upon contact with the covering**

3 Sound is absorbed by the covering **4 Sound passes through the covering**

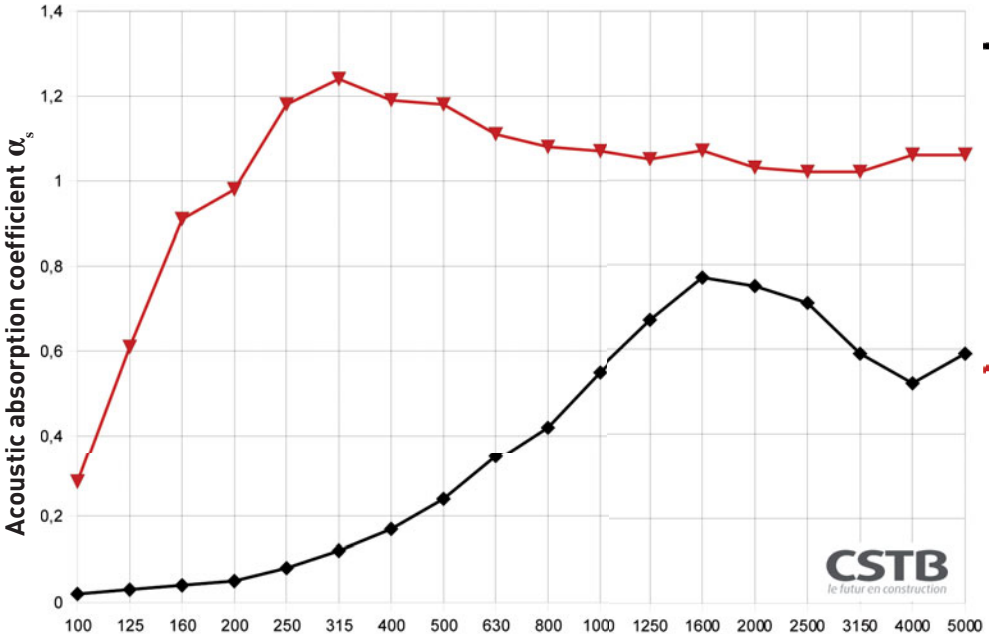
• The acoustic absorption coefficient results from the ratio of absorbed sound energy to incident sound energy. **It is expressed in α_s (alpha Sabine), with a grade of 1 meaning that all sound is absorbed.**

• Another significant criterion in which the **clipso** acoustic coverings provide excellent results: the reverberation time (RT_{60}).
This is defined as the time needed for the level of sound pressure to decrease by 60 dB (decibels) after the interruption of the sound source. It is given in seconds, and the lower the time, the greater the acoustic comfort it provides. **Depending on the configuration and the frequency, it is possible to gain more than 6 seconds using the acoustic solutions offered by clipso.**

clipso offers a choice of three coverings: 705 A, 795 A and 495 D.

Technical characteristics of the 495 D covering

Dyed polyester weave – Micro-perforated mesh, 250 000 holes/m² – Width up to 5.10 m
Thickness: 0.4 mm – Weight: 230 (Black) - 330 (other colours) gr/m², +/- 10 %
Appearance: matt, textile touch, micro-perforated material - Fire resistance: B-s1,d0 (ex M1)
Moisture resistance - Tear resistance CH 3.4/TR 3.6 - Light stabilisation > 8



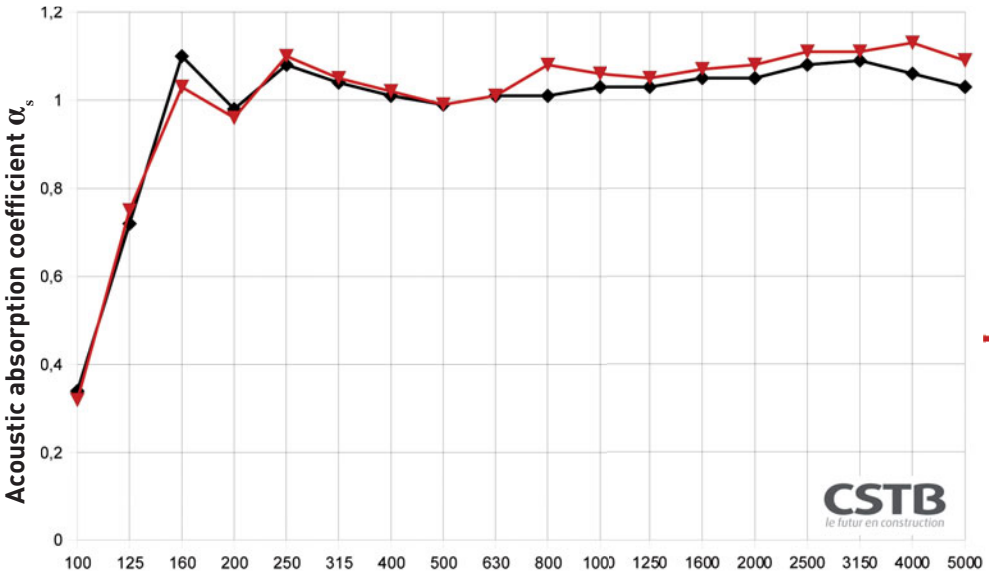
Frequency (f) in Hertz (Hz)

495 D standard covering without insulation
α_s = 0,30 - Classification: D

Original ceiling
Empty plenum space (55 mm)
495 D covering (0,4 mm)

495 D standard covering with insulation
α_s = 1 - Classification: A

Original ceiling
Empty plenum space (55 mm)
Glass wool (100 mm)
495 D covering (0,4 mm)



Frequency (f) in Hertz (Hz)

495 D printed covering with insulation
α_s = 1 - Classification: A

Original ceiling
Empty plenum space (355 mm)
Glass wool (100 mm)
495 D covering (0,4 mm)

495 D standard covering with insulation
α_s = 1 - Classification: A

Original ceiling
Empty plenum space (355 mm)
Glass wool (100 mm)
495 D covering (0,4 mm)

clipso sound®

The ideal acoustic solution

Meeting room (Turkey) - Installation: TTI

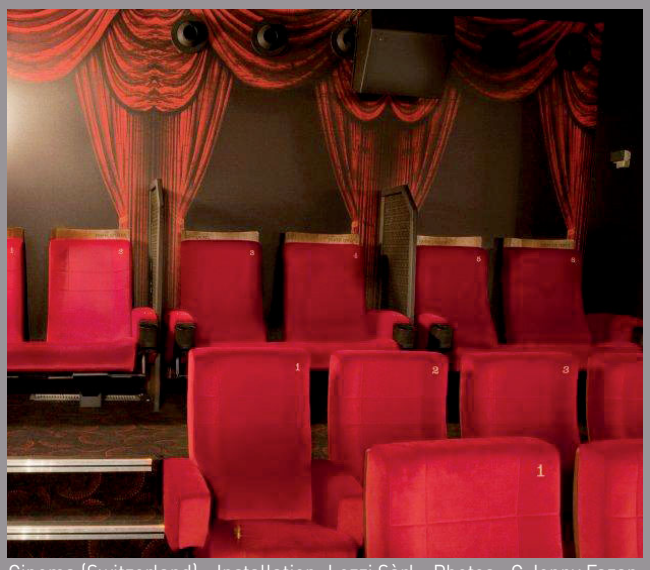
Thanks to **clipso** coverings and to the numerous possibilities for installation, you can optimise the acoustic performances of your walls and ceilings as well as your frames, screens, lightboxes, suspended ceilings, sliding partitions, etc.

In addition, printed **clipso** coverings retain all of their acoustic characteristics.

You can therefore combine customised designer surroundings with high-performance solutions to increase the comfort of your daily environment.

*For years, we have had the utmost confidence in **clipso** products and have ensured its promotion in various installations with a great deal of success.*

Our aim for the Odeon Cinema was to recreate the cosy atmosphere of cinemas at the beginning of the last century, combined with modern technology and materials.
The requirements for this 450 m² project were as follows:
*• ensure that its doors opened on the set date. As the **clipso** system guarantees a **quick installation we were able to respect this time constraint of around 10 days.***
*• offer **quality coverings of an impeccable colour finish and appearance, while guaranteeing high acoustic performance.** The 705 A black covering selected in this case responded perfectly to these various requirements.*



Cinema (Switzerland) - Installation: Lezzi Sàrl - Photos: C Jenny Fazan

The visual and technical results were completely successful, and the acoustic performance is excellent, much to the high overall satisfaction of the management and the audience.

Testimonial given by Mr Alexandre LEZZI,
Manager of Plafond Concept-Lezzi Sàrl, Switzerland

Company entrance hall (Belgium) - Installation: Mona Visa
Architect: Architextuur-Thomas Coucke

Company restaurant (Belgium) - Installation: Mona Visa
Architect: Lineos-Chris Vantornout

Meeting room (France) - Installation: Clipso

Offices (Belgium) - Installation: Mona Visa
Architect: Lineos-Chris Vantornout

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