

clipso sound[®]

Acoustic comfort for your ears!



Introduction

Noise pollution is 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 acoustic regulations.

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 enhancement of good acoustics in any environment and thus provides a source of comfort and wellbeing to which we all aspire, in our daily lives.



Architectural firm [Belgium] - Installation: MonaVisa
Architect: Architextuur-Thomas Coucke



How can you improve the acoustic performance of your premises?

Two factors 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.

clipso coverings treat acoustic absorption.



Restaurant [Belgium] - Installation: MonaVisa
Architecte: Redline Projects



What kind of sound does clipso treat?

To achieve a balanced acoustic improvement, several types of sound must be treated all at once:

- 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.



Reception room [Israel] - Installation: Glarus Ltd

clipso: an optimal acoustic asset

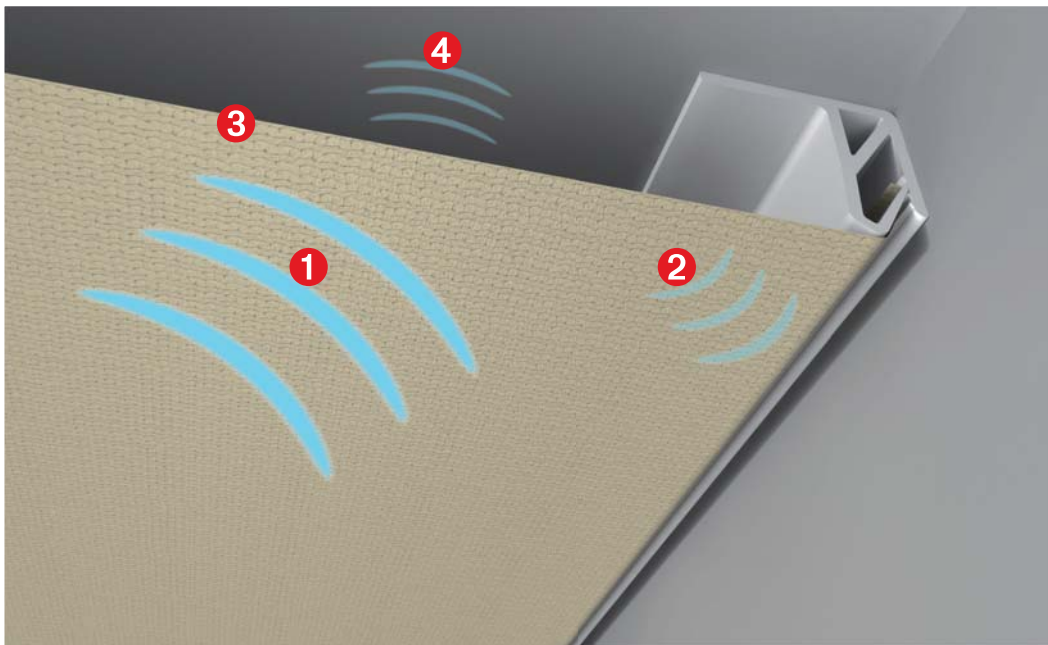
In order to create an excellent acoustic environment, simply combine **clipso** coverings and acoustic insulators. Outfitting a space with the appropriate combination makes the space acoustically suitable for its intended use.

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.**

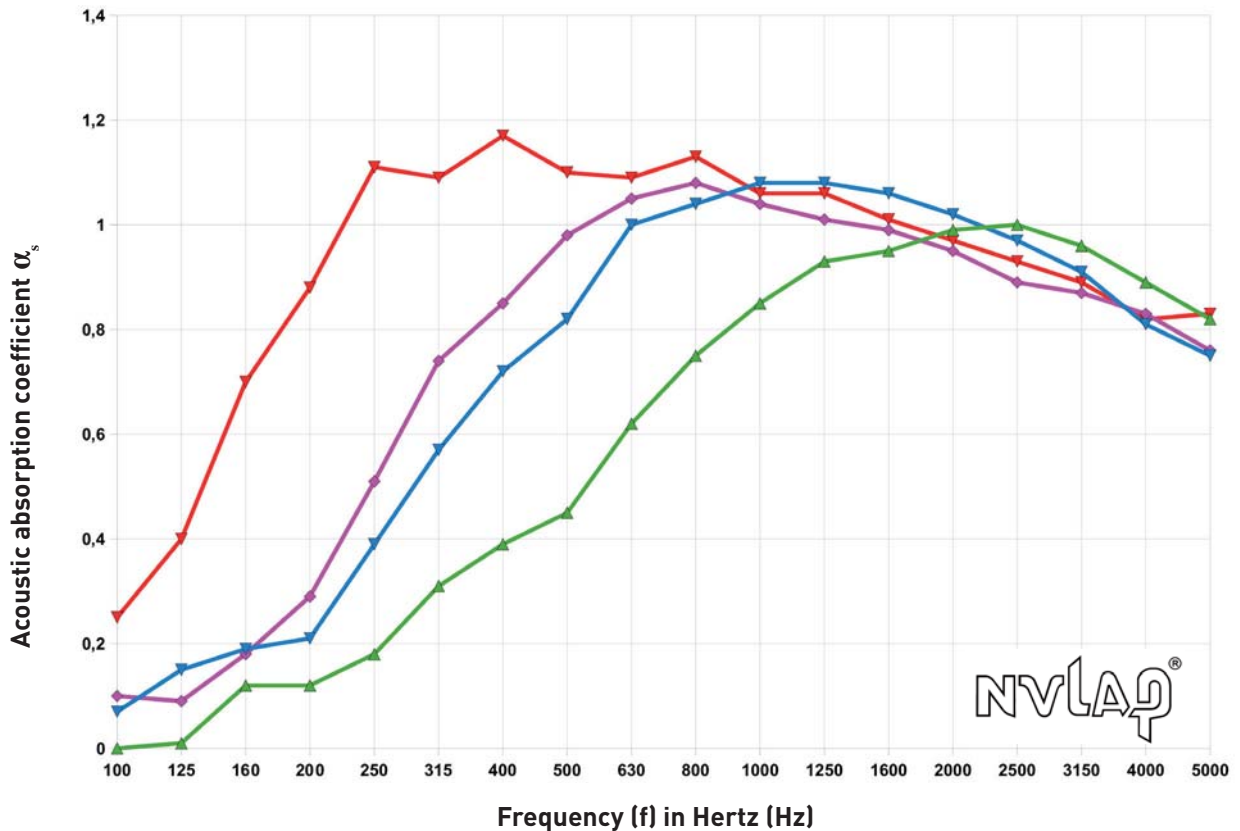
- Another significant criterion in which the **clipso** acoustic coverings provide excellent results: the reverberation time.

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.**

Technical characteristics of the 495 D covering

Polyester knitted fabric coated with polyurethane (PU) – Openwork mesh, 250 000 holes/m²
 Width up to 16'8" – Thickness: 0.4 mm – Weight: 0.50-0.72 lbs/yd (+/- 10 %) – Colors: 3
 Appearance: Matt, smooth and uniform – Fire resistance: ASTM E 84
 Resistance to humidity - Tear strength CH 5.5/TR 7.5 – Light stabilisation > 8

Acoustic Absorption Test Results ASTM E 795-00: Type A



495 D fabric over 2" fiberglass
 Test report N° AB10-102

NRC: 1.05 - SAA: 1.05

495 D fabric over 1" fiberglass
 Test report N° AB10-103

NRC: 0.85 - SAA: 0.87

495 D fabric over 2 layers 3/8" LA 53 synthetic batting
 Test report N° AB10-105

NRC: 0.85 - SAA: 0.83

495 D fabric over 1 layer 3/8" LA 53 synthetic batting
 Test report N° AB10-104

NRC: 0.60 - SAA: 0.63

Test date : February 2010. Full acoustic test reports are available upon request.

The ideal acoustic solution



Unilever (Turkey) - Installation: TTI Elektrik Elektronik

Thanks to **clipso** coverings and to the numerous installation possibilities, 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.

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*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 5000sqft 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 10 day installation window.**
- offer **quality coverings of an impeccable color 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 Sarl - 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 LEZZI Sarl, Switzerland.

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



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



Meeting room (France) - Installation: CLIPSO



Offices (Belgium) - Installation: MonaVisa
Architect: Lineos-Chris Vantornout

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