

# SO ACOUSTIC

**Acoustic Solutions** for your Interiors



**CLIPSO®**  
so different



VIP Lounge at Koltsovo Airport: Russia - Installer: CLIPSO UNION



Golterman & Sabo Offices: St. Louis, MO - Installer: Golterman & Sabo

## SO ACOUSTIC

**When light and sound transforms our daily lives**

Designed to solve two interior design needs with one innovative covering, the CLIPSO® Research and Development Team is proud to bring you SO™ ACOUSTIC 495 AT Acoustic Translucent coverings.

When paired with a sound absorber, the acoustic performance of the Acoustic Translucent 495 AT covering is impressive (NRC 1.05) and allows you to easily integrate lighting into your design with the perfect finish that CLIPSO coverings have become synonymous with. This makes Acoustic Translucent 495 AT covering the perfect choice for areas requiring acoustic performance and integrated lighting such as universities, libraries, corporations, museums, restaurants, retail, hotels, airports, theaters, pools, spas, and more.



Multiple forms



Acoustic



Translucent



Luminous



Printable

### Technical characteristics of 495 AT covering

#### Polyester knitted fabric coated with polyurethane (PU)

Openness factor: 250,000 holes/yd<sup>2</sup>

Width: Up to 16' 8"

Thickness: .016"

Weight: 0.8oz/ft<sup>2</sup> (+/- 10%)

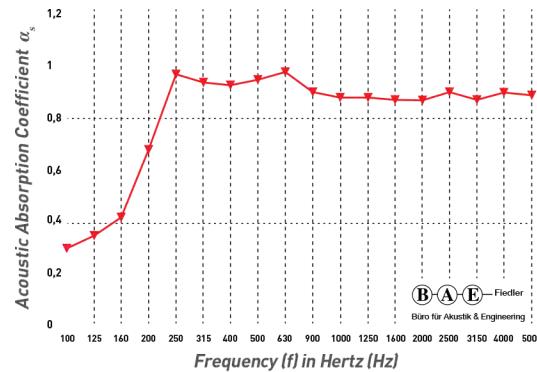
Color: 1

Appearance: Matte, smooth and uniform

Fire reaction: Class A (ASTM E 84)

Tear strength: CH 5.5 daN/TR 7.5 daN

Light transmission: 40% (two layers)



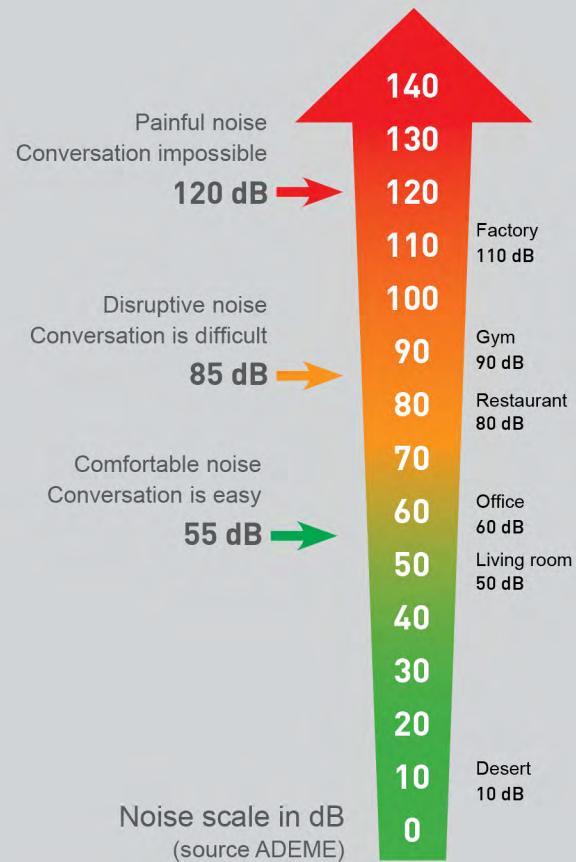
495 AT covering with insulation  
 $\alpha_s = 0.95$  - Classification: A  
 Original Wall or Ceiling  
 Insulation LA54 (1.97 in)  
 Empty plenum space (6.1 in)  
 495 AT Covering (0.016 in)

Other acoustic tests are available by contacting us at contactusa@clipso.com.

# SO ACOUSTIC

Noise pollution is recognized by the scientific community as being a major source of daily discomfort and stress in both public and private spaces. It has a significant impact on health and performance. For this reason, there is an increasing number of regulations regarding acoustics.

Good acoustics are the result of careful planning and the use of materials that provide acoustic optimization. CLIPSO® believes that good acoustics and good visual design should go hand in hand, as both provide a source of comfort and well-being.



Bethel Gospel Assembly: New York, NY - Installer: The Huff Company, Inc.

There are several factors involved in measuring and improving the acoustic performance of a space:

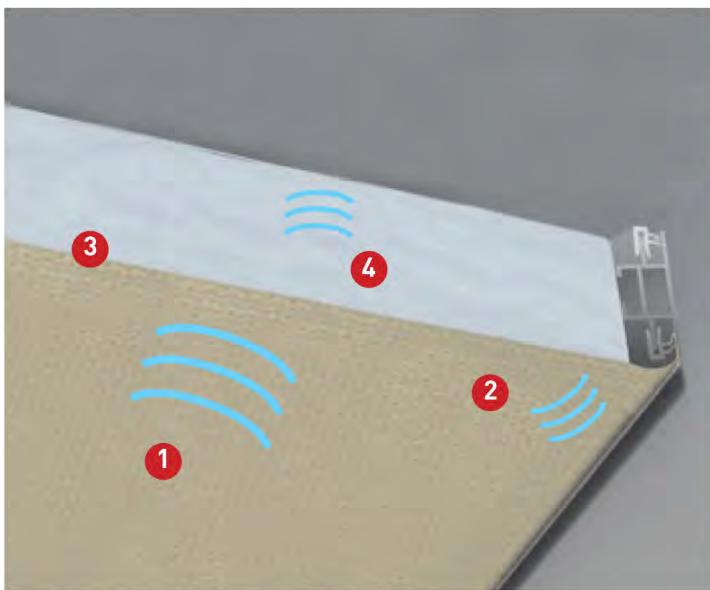
- The level of sound: Sound is measured in decibels (dB); the higher the dB, the louder the noise is.
- Reverberation time: The amount of time it takes for a sound to fade away.
- Noise Reduction Coefficient (NRC): The ability of a surface to absorb sound energy.

These parameters can be achieved, and the acoustic performance of a space can be greatly enhanced, by using the right acoustic materials in your design.

CLIPSO provides a full line of performance coverings to provide optimal acoustic performance. SO™ ACOUSTIC coverings 705 A, 495 D, 495 AC, 495 AT, and 495 D AB, in conjunction with CLIPSO acoustical batting LA 53 and LA 54, are ideal for acoustic absorption and can be installed on ceilings, walls, and free-standing or suspended structures.



Galaxie Library: Apple Valley, MN - Installer: Innovative Acoustics  
Architect: BTR Bentz Thompson Rietow - Sales Rep: Tegan Marketing



## Understanding Sound

SO™ ACOUSTIC coverings, together with CLIPSO® acoustical batting, provide an excellent acoustic solution for any interior.

- ① The start of the acoustic wave
- ② The sound is partially reflected upon contact with the covering
- ③ The sound is mostly transmitted through the covering
- ④ Some sound passes through and is absorbed by the acoustical batting

## Improving Acoustic Performance

### Reverberation

**Reverberation** is the measure of a room's echo which impacts the ability to understand verbal exchanges. When a sound wave meets a surface, the sound is either reflected off the surface, absorbed by the surface or transmitted through the surface.

Reverberation time (RT60) is the time needed for the level of sound 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. CLIPSO acoustic coverings provide excellent reverberation times. Depending on the setting and frequency, it is possible to gain more than 6 seconds using the SO™ Acoustic range of coverings.

### Noise Reduction Coefficient (NRC)

**The Noise Reduction Coefficient is the ability of a surface to absorb sound energy.**

When paired with an acoustic absorber, the SO ACOUSTIC system can reach an NRC of 1.05, meaning that all sound is absorbed.

### Acoustic Absorption Coefficient

**The Acoustic Absorption Coefficient results from the ratio of absorbed sound energy to incident sound energy.**

It is expressed as Alpha Sabine ( $\alpha_s$ ) with the highest grade being a 1. When paired with an acoustic absorber, the SO ACOUSTIC system can reach an Alpha Sabine ( $\alpha_s$ ) of 1, meaning that sound is perfectly absorbed.



Renaissance Learning Center: New York, NY - Installer: The Huff Company, Inc.



Pittsburgh Residence: Pittsburgh, PA - Installer: Unique Construction

## Technical characteristics of 495 D and 495 AC coverings

CLIPSO® SO™ ACOUSTIC coverings are highly micro-perforated which allows for a high level of acoustic performance. When combined with an acoustical batting, NRC's (Noise Reduction Coefficients) can reach 1.05.

SO ACOUSTIC coverings are available in stock or custom colors, or printed with high-resolution digital, stock or custom images. Ceiling tiles, or suspended clouds, can be created to enhance both aesthetic and acoustic properties.

CLIPSO is proud to offer Acoustic 495 D coverings in 3 colors and Acoustic Color 495 AC coverings in 29 beautiful earth-tone colors that share the same sound-absorbing properties of the classic acoustic coverings.

### Polyester knitted fabric coated with polyurethane (PU)

Openness factor: 250,000 holes/yd<sup>2</sup>

Width: Up to 16' 8"

Thickness: .016"

Weight: 0.8oz/ft<sup>2</sup> (+/- 10 %)

Colors: 3 (495 D) and 29 (495 AC)

Appearance: Matte, smooth and uniform

Fire reaction: Class A (ASTM E 84)

Tear strength: CH 5.5 daN/TR 7.5 daN

Light fastness: > 8

**The 495 D covering offers the same acoustic performance whether printed or not.**



Corporate training auditorium: Mt. Vernon, OH

Installer: Ketcham & Walton

## Acoustical Batting LA 53 and LA 54

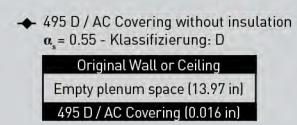
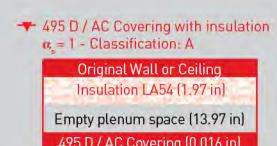
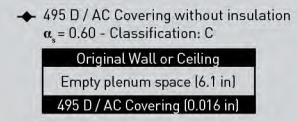
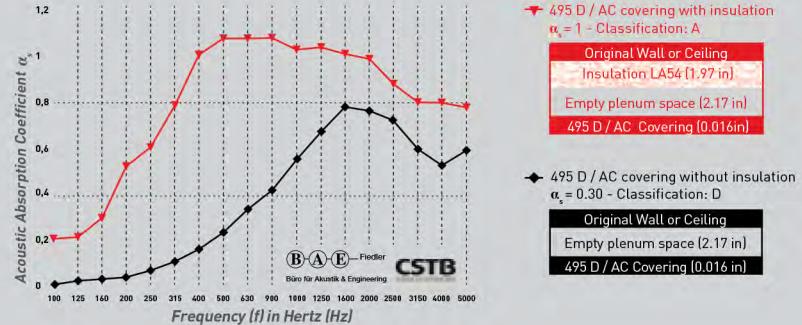
**CLIPSO acoustical batting** is a synthetic, polyester material that is both non-fibrous and lightweight. It provides a high noise absorption rate, a high resistance to moisture and is easy to install, as it contains no fiberglass. When used with SO ACOUSTIC coverings, you get a much higher rate of sound absorption because any of the sound that is transmitted through the fabric is now met with the acoustical batting installed behind the fabric.

**LA 53 acoustical batting** is a white, synthetic material that is 0.375 inches thick. When used in a double layer, it equals 1" of fiberglass.

- CLIPSO Acoustic 495 D covering over one layer of LA 53 gives a Noise Reduction Coefficient (NRC) of 0.60 and a Sound Absorption Average (SAA) of 0.63.
- CLIPSO Acoustic 495 D covering over two layers of LA 53 gives a Noise Reduction Coefficient (NRC) of 0.85 and a Sound Absorption Average (SAA) of 0.83.

**LA 54 acoustical batting** is a white, synthetic material that is 1.75 inches thick.

- CLIPSO Acoustic 495 D covering over one layer of LA 54 with a 2.25" plenum gives a Noise Reduction Coefficient (NRC) of 1.05 and a Sound Absorption Average (SAA) of 1.05.



Other acoustic tests are available by contacting us at [contactusa@clipso.com](mailto:contactusa@clipso.com).



University of South Carolina: Columbia, SC - Installer: WARCO Construction, Inc. - Architect: LS3P

## Knowledge and expertise at your service!

At CLIPSO®, our strength is in our custom solutions and high-quality product offerings. Our experienced and talented team of experts is always available to help you achieve your design goals. From sales and engineering, to design and project management, CLIPSO provides assistance with your project every step of the way.

Our ultimate goal is to help you achieve yours!



ISO 9001:2015  
BUREAU VERITAS  
Certification



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so different

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