



Visual beauty and sound quality, the two key elements  
for your architectural spaces.



Products that improve the acoustical properties of the architectural spaces.

Panels made of MDF or agglomerated particles with moisture resistance. Fronts laminated with high pressure laminate, or other decorative and backing coated options with a 22 microns nonwoven fabric.

*Silencia* helps to capture sound waves and improves sound according to the needs of the spaces.

*Silencia* offers a wide possibility of perforation patterns to absorb sound waves, more than 50 colors, designs and textures of wood, providing acoustic and aesthetic properties.

## Main Features



Up to 75% absorption of sound.



Ceiling panels on substrates resistant to moisture.



FSC™ certification



GREENGUARD Certified Coatings



Variety of designs, finishes and perforations



**SILENCIA** creates the ideal atmosphere for architectural spaces with wall and ceiling coverings, highlighting the visual quality and the suitable acoustic management of your projects.

Panels with acoustic properties can be used in spaces where it is necessary to control or reduce the noise generated by different sources.

They are ideal for theaters, meeting rooms, auditoriums, cafeterias, restaurants, lounges, food courts and churches, among others.

The installation of these acoustic panels is performed on metal supports with a safety seismic clip, to ensure a lasting and safe installation.



## Products

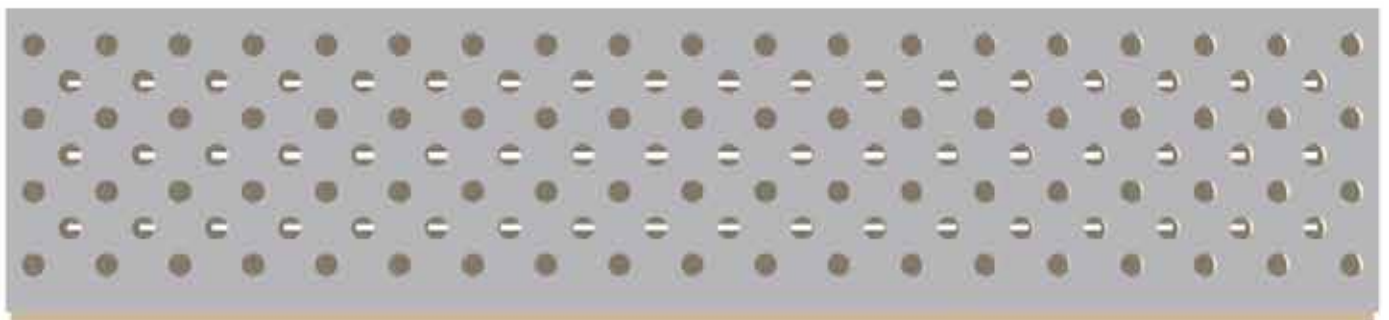
**Walls** Slotted MDF slats on the front and drilled in the back.

- Thickness: 15 mm
- Dimensions: 128 x 600 mm, 128 x 128 x 1200 mm and 2400 mm
- Exterior Face: Slotted 3mm, with a 32 mm distance between the slots
- Back side: 8 mm holes in a grid, with a distance between axis of 32 mm
- System assembly: The slats have a tongue and groove assembling system

Front



Back



# Ceilings

Trays 15 mm of thickness in an agglomerate of particles with a moisture resistance of 605 x 605 mm

Slotted:

- Slotted: 8 and 10 mm
- Distance between axis: 45 mm and 60 mm

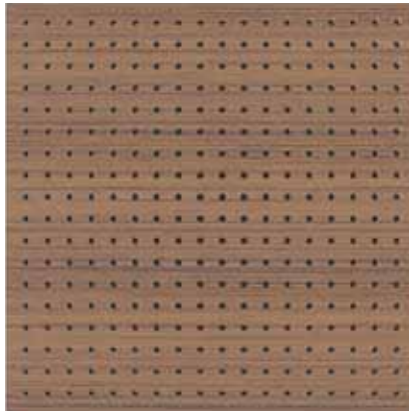
Perforated:

- Drilling diameters: 6, 8, 10 or 12 mm
- Distance between axis: 16 mm and 32 mm

Slotted pattern A



Straight drill



Diagonal drill



Slotted Pattern B



Straight



Perforated percentage area				
	System distance between axis (mm)			
	16		32	
Drilling diameter (mm)	Perforation design			
	Rectangular	Diagonal	Rectangular	Diagonal
6	9%	18%	3%	5%
8	17%	33%	4%	8%
10	26%	N.A.	7%	13%
12	N.A.	N.A.	10%	19%

The panels with better sound absorption have a perforated area above 15%.

The ceilings and Walls products are available in our high pressure decorative laminates:

*Fusion Maple 1323, Alpi Clear 1799, Lineal Oak 1467, Beech 1780, Dark Alpi 1798, Haya 1750, Caramel Limb 1325, Maple Cognac 1485, Caffe Latte Noce 1832, Grey Oak 1829, Wengue 1807* and other references and finishes for special projects.

For more information contact us at [info@silencia.com.co](mailto:info@silencia.com.co)

# Absorption coefficient

The measurement was performed by analyzing a sample of the most insulated material (system 16 @ 8 mm), Theater Black 2 " reference, with an area of 10.08 M2, directly installed on the reverberation chamber.

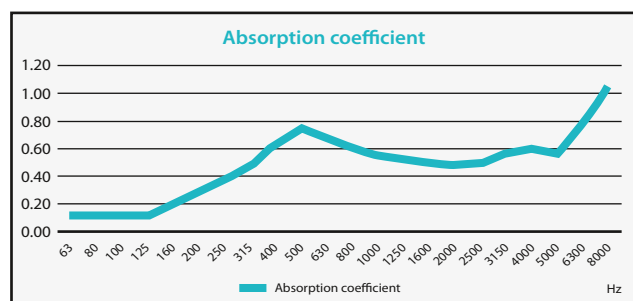
Technical details of the reverberation chamber:

- Volume: 194.633 m3
- Total area : 210.67 m2
- Area : 25.61 m2
- Reverberation times : measured on site

## Absorption coefficient estimates

Applying the calculation formula of the absorption coefficient, established by rule ISO/R345, the following results are obtained:

FREQ Hz	TR60(s) Empty Chamber	TR60(s) Displays	Dif A= (5.3*V/c)* ((1/T2) - (1/T1))	Absorption coefficient
63	3.47	3.13	0.98	0.11
80	3.43	3.11	0.94	0.11
100	3.38	3.06	0.97	0.11
125	3.38	3.05	1.00	0.12
160	3.31	2.81	1.68	0.19
200	3.21	2.56	2.47	0.29
250	3.11	2.36	3.19	0.37
315	3.06	2.17	4.18	0.48
400	3.03	1.98	5.46	0.63
500	3.02	1.86	6.44	0.75
630	3.04	1.93	5.90	0.68
800	3.08	2.03	5.24	0.61
1000	3.14	2.13	4.71	0.55
1250	3.06	2.12	4.52	0.52
1600	2.99	2.11	4.35	0.50
2000	2.89	2.09	4.13	0.48
2500	2.66	1.95	4.27	0.49
3150	2.45	1.77	4.89	0.57
4000	2.18	1.6	5.19	0.60
5000	1.84	1.43	4.86	0.56
6300	1.59	1.18	6.82	0.79
8000	1.33	0.96	9.04	1.05



ABSORPTION COEFFICIENT AVERAGE 0.56 NRC

## Recommendations

"Silencia has high absorption levels mainly in high and medium frequencies, for which it is recommended to be used in public and private settings to control environmental noise, such as food courts, restaurants, shopping malls, airports, open plant offices, among others."

Arq. Daniel Duplat L.  
Acústica, Diseño y Tecnología





**Lamitech**®

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