

Cabin acoustic ©AudioCab Studio



Soundproof booths kit

high performance insulation and sound absorption for the practice and recording music at home.

Absorption Alpha Sabine : 90 %

Sound attenuation Rw : 32 dB



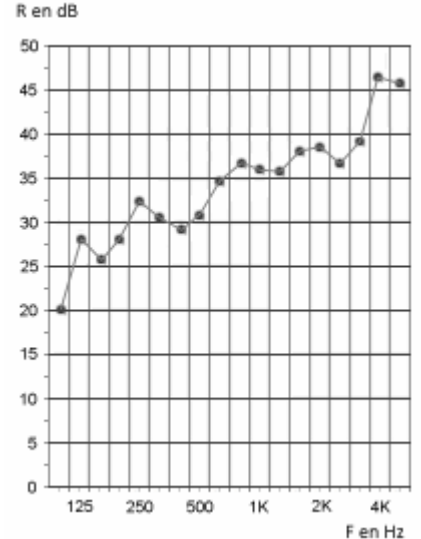
PNC France Paneling system

High performance insulation and sound absorption for the practice and recording music at home.

Issued from the technology of the European leader of the manufacturers of insulation panels made of high density mineral wool, "PNC Paneling System France SARL" manufactures and distributes modular systems, fully equipped, in the field of cabins with high acoustic performance.

The vertical steel sheets are made of a triple fold which permit a sealing connection between two panels with tailored profiles. The high density of rockwool permits to obtain panels with a good mechanical strength and performance characteristics of acoustic insulation

The sound reduction R_w index, tested in a laboratory of the CSTB in Paris, is 37 dB. The Alpha Sabine absorption, representing the amount of sound energy absorbed by the inner walls of the cabin, is 90%. This parameter is important. It helps to preserve the "musical colour" of your works.



Why buy an acoustic cabin?

Your neighbours or your family no doubt appreciate your music, but are not necessarily big fans of your daily rehearsal sessions. In addition, you would like to play in good acoustic conditions, but the studios are expensive and may be away from home.

By equipping yourself an acoustic cabin © AudiCab, you preserve the quietness of your relatives, and you express your art in the best possible listening conditions, or for live recordings of professional quality ...

Our range of choice:

We offer a wide choice of sizes and models to best meet your needs according to the space you have and the kind of musical instrument that you practise.



Available models:

Cabins type DP (Double cut side), SP (Simple cut side) and SR (S-Right-angled)



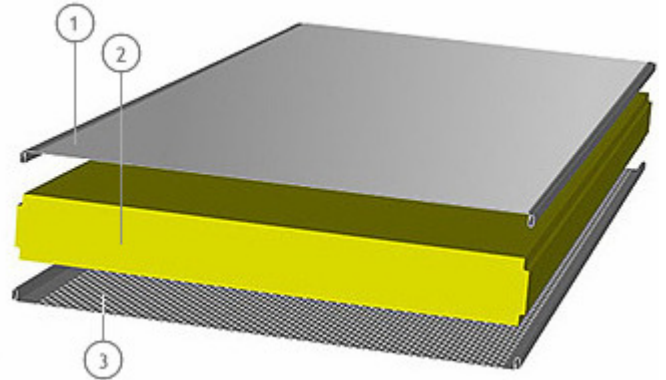
I - Systems assembly

Wall panels are made of a blend of three components self-glued:

1. Cladding lacquered steel sheet
2. Mineral wool core, 170 kg/m³
3. Steel sheet lacquered perforated

The vertical steel sheets are made of a triple fold which permit a sealing connection between two panels with tailored profiles.

The high density of rockwool permits to obtain panels with a good mechanical strength and performance characteristics of acoustic insulation



Mass and acoustic:

The weight of a cabin "20 SR 26" is 680 kg.

The mass is a determining factor for soundproofing in low frequencies and stability of components subject to the acoustic vibrations.

The sound attenuation of walls is 37 dB "Rw" and the sound absorption coefficient Alpha Sabine average is 90% (test CSTB).

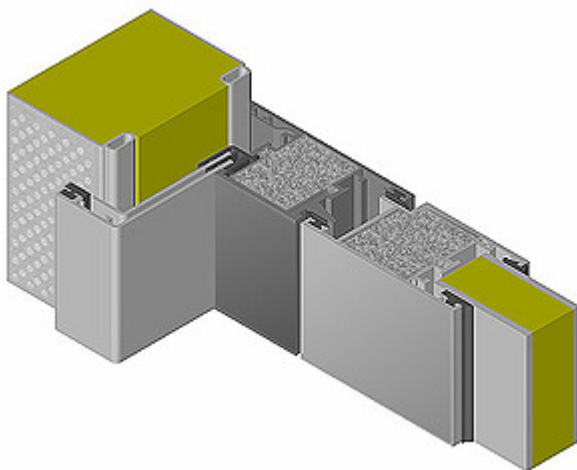
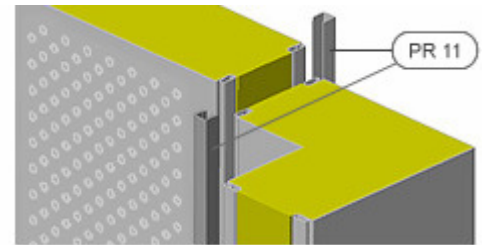
In addition, both steel cuffs associated with a core of rockwool high density guarantees a flawless appearance and a resistance in time remarkable.

I - Systems assembly

Wall panels:

The panels are interconnected by a system of two profiles of interfaces PR11, U-shaped, which are inserted with a mallet in a three-fold section on the vertical edges external and internal, on the full height panels.

Because of the continuity of rock wool, which is flush with the folds of sheet metal, the acoustic characteristics are optimal.



Doors and windows:

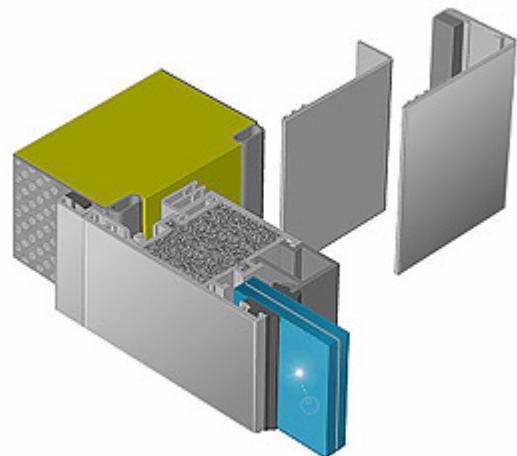
The door blocks and windows are inserted in the openings provided in the panels of the cabin.

They come mounted in two parts:

A door block or window external fixed by an against-frame which permits to maintain the whole strongly in place.

Mounting principle:

The against-frames are inserted into the block-door or windows by inserting a crenellated piece.



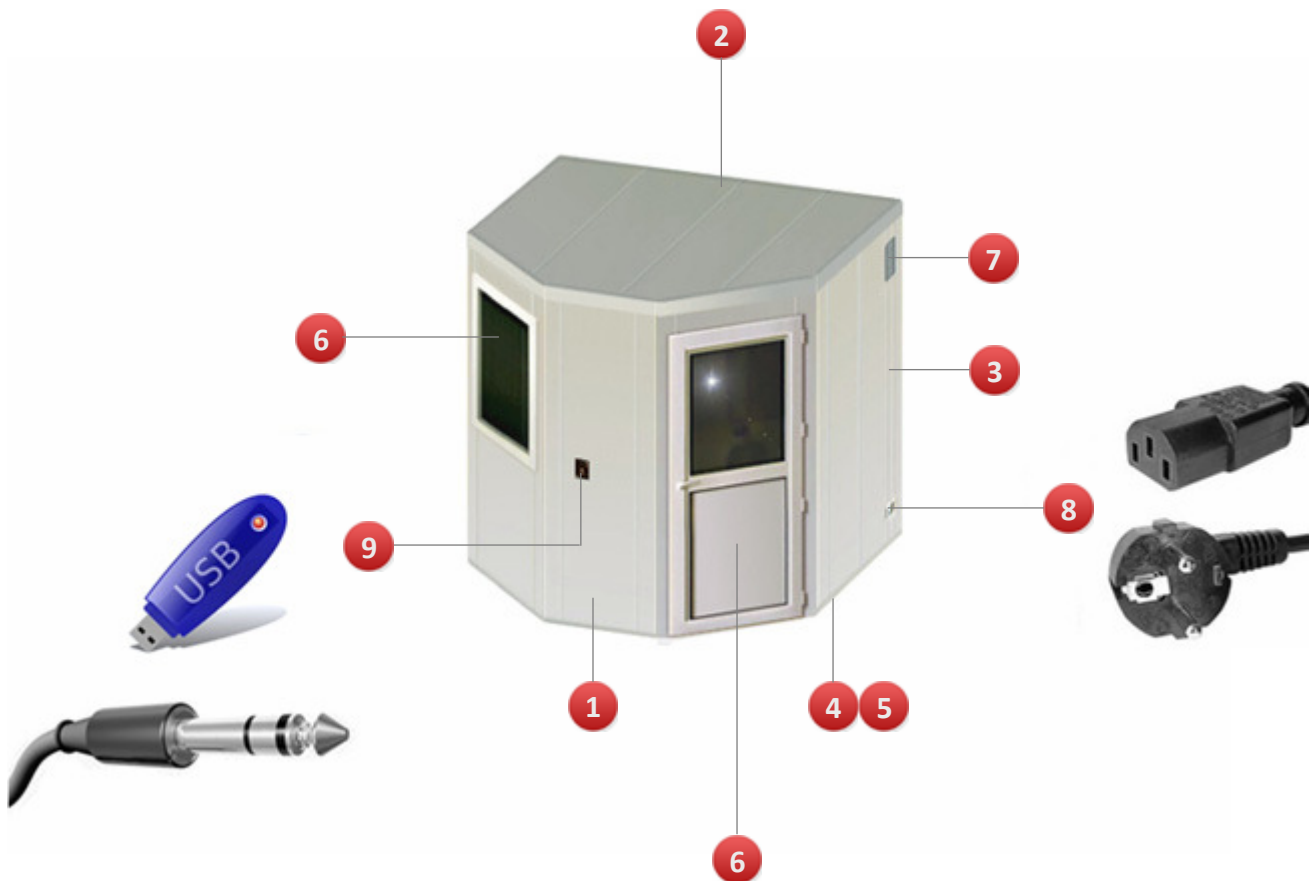
I - Technical characteristics of the cabin:

- Sound attenuation : 40 dB at 1000 Hz
- Set of acoustic cabin, removable and reusable
- Bulkheads 80 mm thick, isolated from soil
- Soundproof doors and windows + Cooling system soundproof
- Reverberation time controlled. Sound absorption average > 85 %
- Musical colour preserved
- Standard color: White 01
- Standard reference: ISO 11957



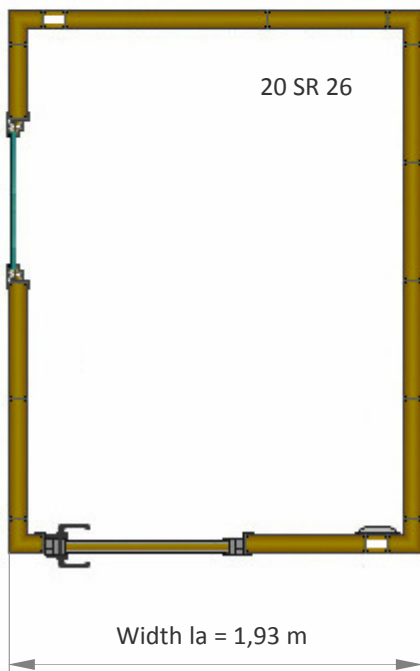
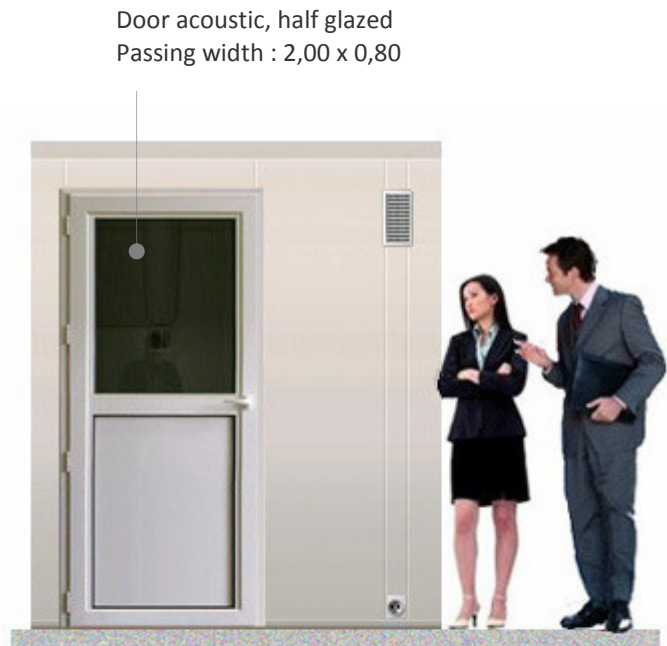
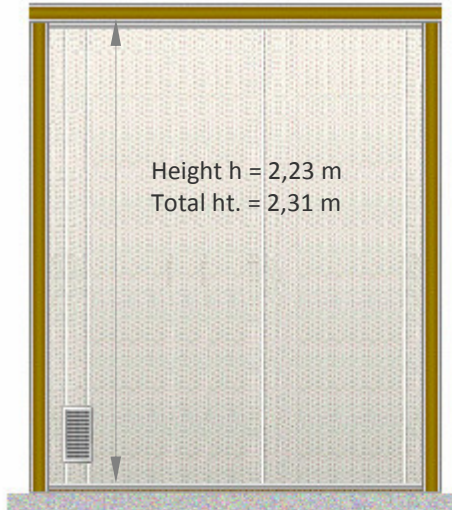
II - Components of the cabin :

1. Acoustic panels
2. Roof acoustic panels
3. Corner / angle panels
4. Multilayer acoustic floor
5. Bottom profiles
6. Acoustic window and door
7. Ventilation soundproofed column
8. Power wire + electric plug 220/240 v
9. Various interfaces, "Jack / Usb"

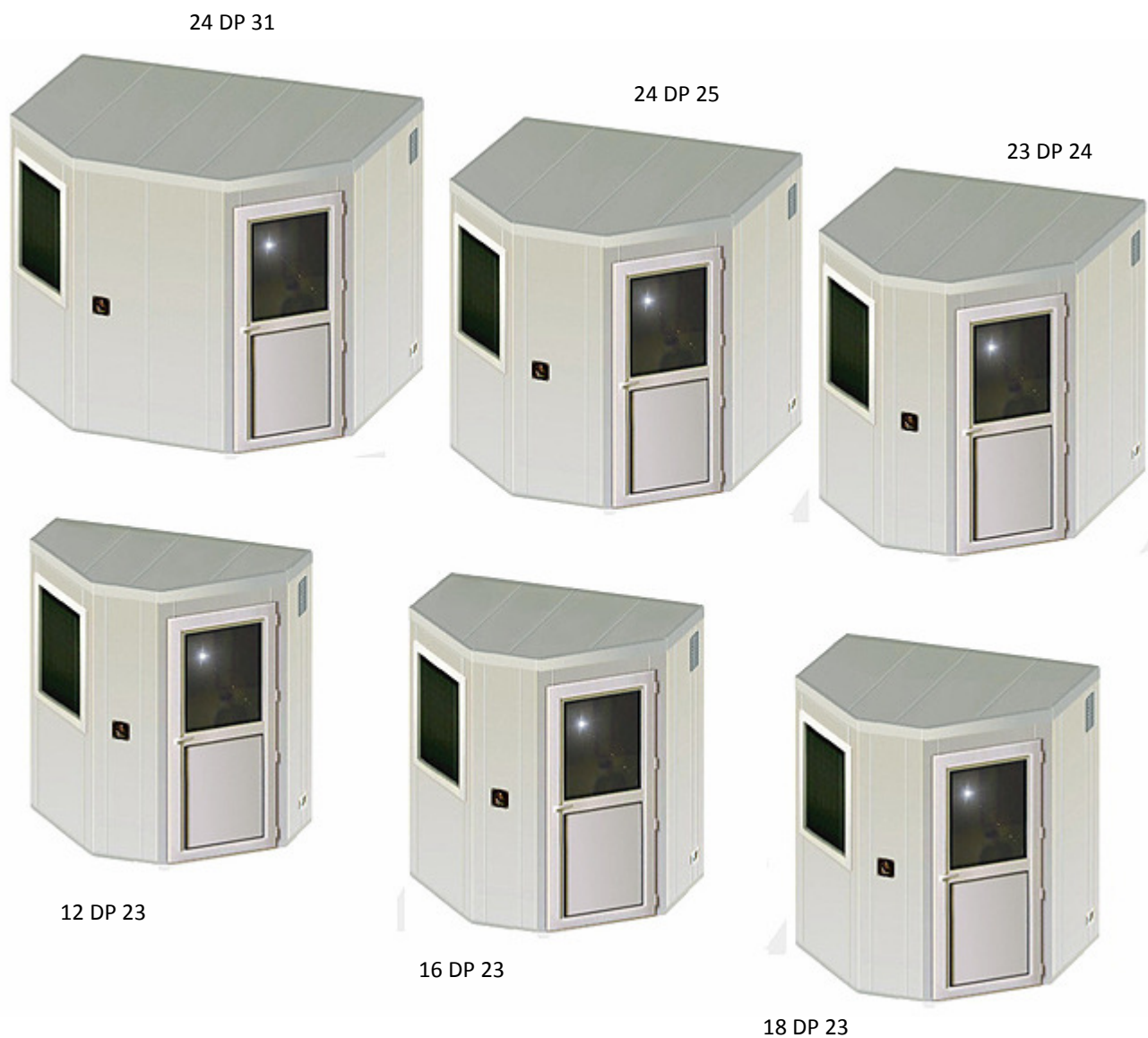


Other serial accessories: Lighting, power plug inside cabin

III - Dimensions of the cabin 20 SR 26:



IV - Dimensions cabins type DP :



Cabins DP:	Lenght:	Width:	Height:	Door width:	Glass width:
12 DP 23	2,22 m	1,19 m	2,31 m	0,80 m	0,96 m
16 DP 23	2,22 m	1,54 m	2,31 m	0,80 m	0,96 m
18 DP 23	2,22 m	1,76 m	2,31 m	0,80 m	0,96 m
23 DP 24	2,32 m	2,22 m	2,31 m	0,80 m	0,96 m
24 DP 25	2,44 m	2,32 m	2,31 m	0,80 m	0,96 m
24 DP 31	3,01 m	2,32 m	2,31 m	0,80 m	0,96 m

V - Dimensions cabins type SP :



Cabins DP:	Lenght:	Width:	Height:	Door width:	Glass width:
10 SP 15	1,44 m	1,00 m	2,31 m	0,66 m	-
10 SP 16	1,54 m	1,00 m	2,31 m	0,66 m	-
11 SP 16	1,54 m	1,10 m	2,31 m	0,80 m	-
11 SP 19	1,88 m	1,10 m	2,31 m	0,80 m	-
12 SP 16	1,54 m	1,20 m	2,31 m	0,80 m	-
12 SP 22	2,10 m	1,20 m	2,31 m	0,80 m	-
16 SP 16	1,54 m	1,54 m	2,31 m	0,80 m	-
17 SP 21	2,00 m	1,64 m	2,31 m	0,80 m	0,46 m
17 SP 26	2,57 m	1,64 m	2,31 m	0,80 m	0,56 m
20 SP 26	2,57 m	1,98 m	2,31 m	0,80 m	0,56 m

VI - Dimensions cabins type SR :

20 SR 26



15 SR 20

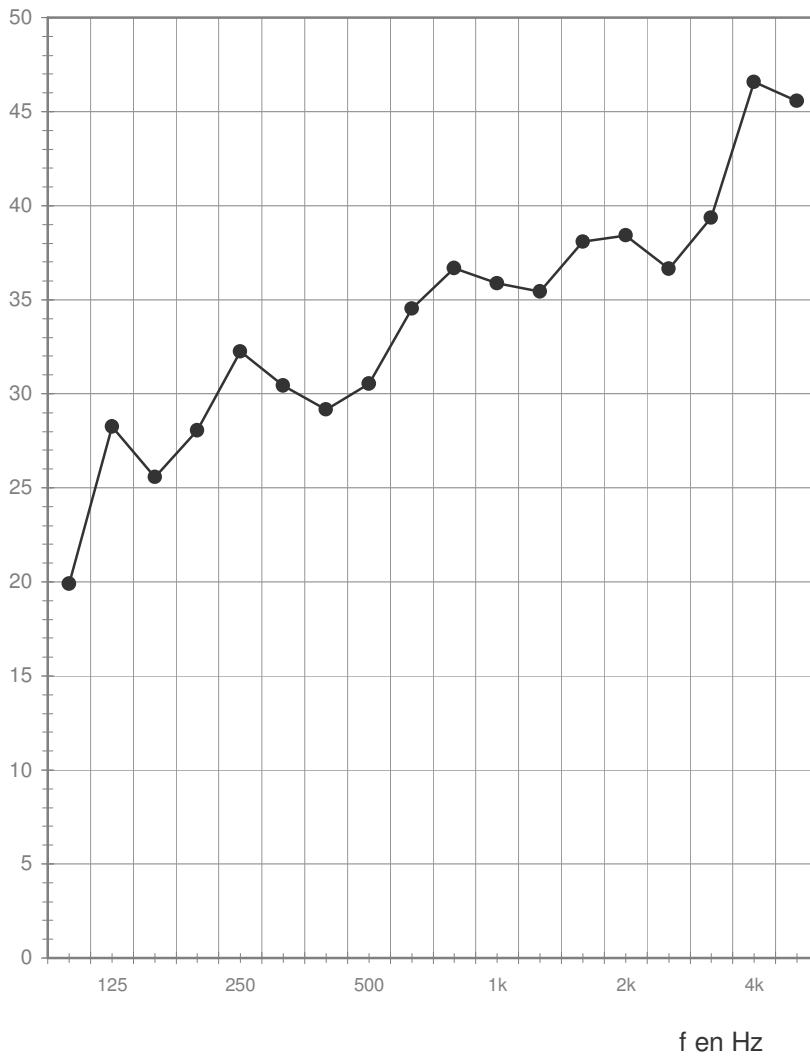


Cabins DP:	Lenght:	Width:	Height:	Door width:	Glass width:
13 SR 17	1,70 m	1,24 m	2,31 m	0,66 m	0,82 m
13 SR 19	1,83 m	1,24 m	2,31 m	0,80 m	0,96 m
15 SR 20	1,93 m	1,44 m	2,31 m	0,80 m	0,96 m
20 SR 21	2,00 m	1,91 m	2,31 m	0,80 m	0,78 m
20 SR 26	2,57 m	1,93 m	2,31 m	0,80 m	0,78 m

IV - Acoustics of the cabin. Index reduction R:



R en dB



f		R
125	100	19,9
	125	28,3
	160	25,6
250	200	28,1
	250	32,2
	315	30,4
500	400	29,2
	500	30,5
	630	34,5
1k	800	36,7
	1000	35,9
	1250	35,4
2k	1600	38,1
	2000	38,4
	2500	36,6
4k	3150	39,4
	4000	46,6
	5000	45,6
Hz		dB

Index walls:

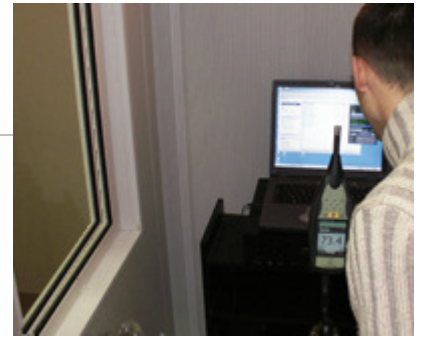
$R_w (C ; C_{tr}) = 37 (-2 ; -5) \text{ dB}$

$R_{pink} = 36 \text{ dB(A)}$

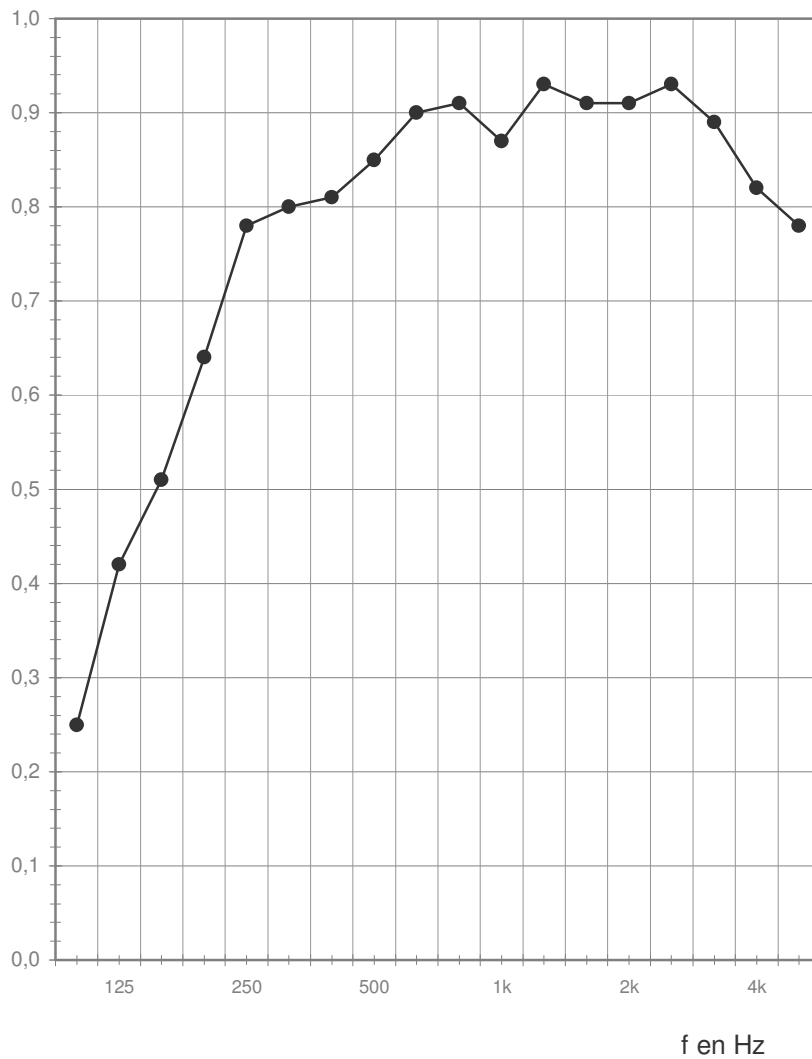
$R_{road} = 32 \text{ dB(A)}$



VIII - Index sound absorption Alpha Sabine:



α_s



f		α_s
125	100	0,25
	125	0,42
	160	0,51
250	200	0,64
	250	0,78
	315	0,80
500	400	0,81
	500	0,85
	630	0,90
1k	800	0,91
	1000	0,87
	1250	0,93
2k	1600	0,91
	2000	0,91
	2500	0,93
4k	3150	0,89
	4000	0,82
	5000	0,78
Hz		dB

Index walls:

$\alpha_w = 0,90$

IX - Octave bands:



Test n° 1

Sound attenuation :

Index walls:

$R_w (C ; C_{tr}) = 37 (-2 ; -5) \text{ dB}$

$R_{pink} = 36 \text{ dB(A)}$

$R_{road} = 32 \text{ dB(A)}$

f (Hz)	R (dB)
125	25,4
250	30,1
500	32,9
1000	36,0
2000	38,0
4000	41,5

Test n° 2

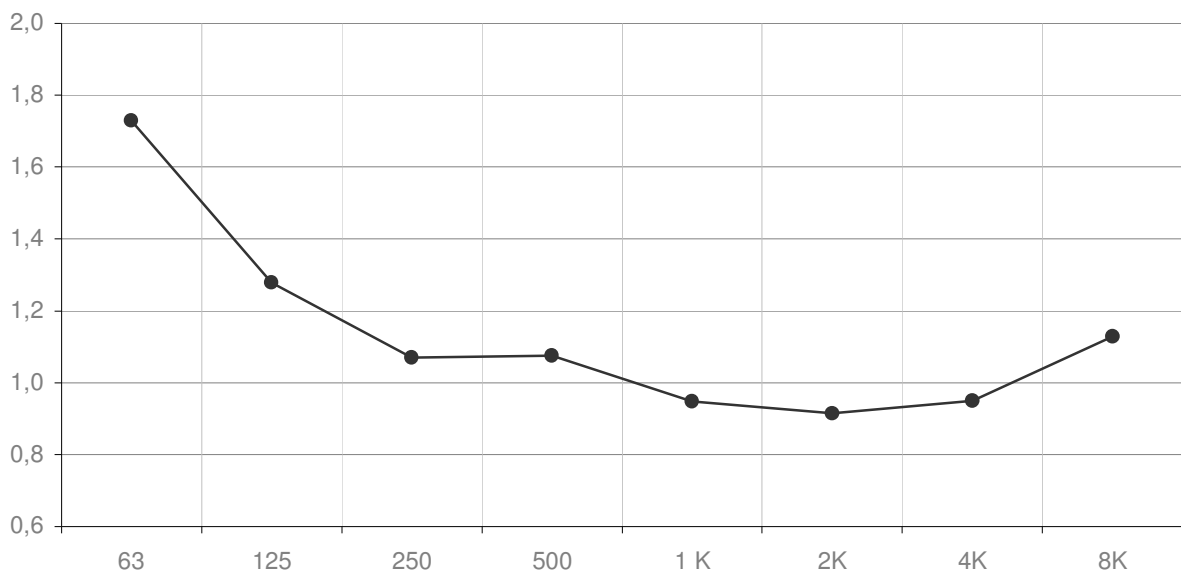
Absorption α_s :

Index walls:

$\alpha_w = 0,90$

f (Hz)	α_s
125	0,4
250	0,7
500	0,9
1000	0,9
2000	0,9
4000	0,8

X - Reverberation time RT 60



s.	LCT	LAT	63	125	250	500	1 K	2K	4K	8K
001	41,5	20,5	27,6	14,2	9,2	9,7	11,3	12,7	14,7	15,5
002	42,9	21,6	27,0	14,5	11,0	11,6	11,9	14,8	15,6	15,9
003	100,3	101,5	67,2	76,3	84,6	83,7	92,0	96,4	96,8	89,9
004	43,6	39,8	32,5	29,4	28,5	27,9	28,7	30,8	33,6	36,7
005	40,9	20,5	26,3	14,5	9,2	9,2	10,6	13,0	14,8	15,5
006	41,7	21,0	27,6	14,2	9,2	9,7	11,9	14,0	15,1	15,6
007	41,8	20,9	27,2	15,5	10,6	10,2	11,6	13,6	15,1	15,5
TR 60	1,06	0,97	1,73	1,28	1,07	1,08	0,95	0,91	0,95	1,13

Note: The reverberation time may vary depending on the geometry of the cabin

PNC France SARL

Cabins acoustics type AudioCab

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