REPORT N. 047-2021-CR Eng

UNI EN ISO354:2003
ACOUSTIC ABSORPTION MEASUREMENT IN REVERBERATION ROOM

Issue place and date: Cerea (VR), 21/11/2022

Committee: CENTRUFFICIO LORETO SPA – CUF MILANO

Address committee:: Viale Andrea Doria, 17 – 20124 Milano

Sample delivery date:3ʳᵈ November 2021

Sampleprovenance:CENTRUFFICIO LORETO SPA – CUF MILANO

Sample installation date:4ᵗʰ November 2021

Sample installed in laboratory by: Committee (sampling made by the committee)

Test date: 4ᵗʰ November 2021

Test location: Z Lab S.r.l. – Via Pisa, 7 – 37053 Cerea (VR) - Italia

Sample denomination:SHAPES - thickness 30 mm
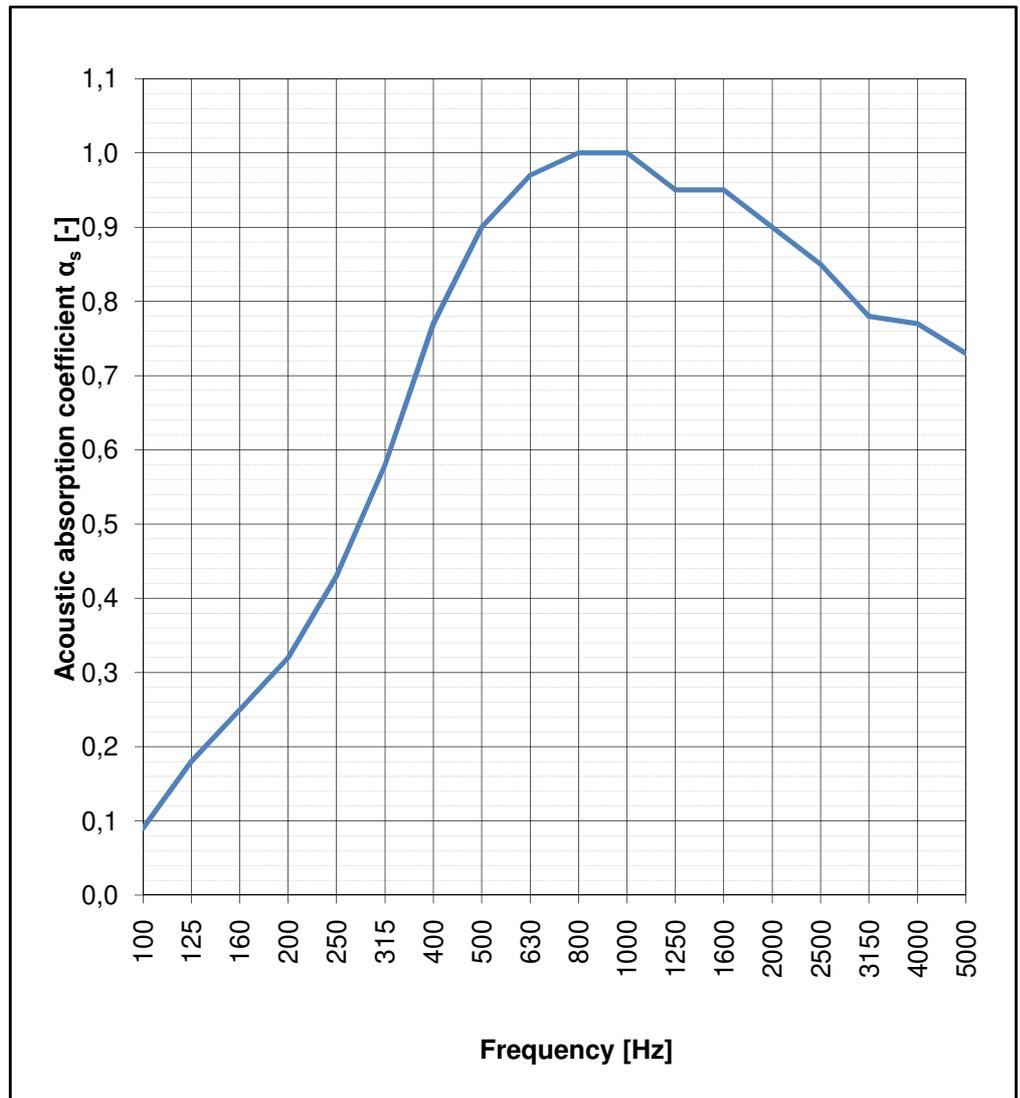
Mounting Type: Mounting A

LAB N° 1416 L

PREPARED	VERIFIED	APPROVED
Sabato Di Filippo	Antonio Scofano	Antonio Scofano

M-TEC-39 eng rev.9
29-12-2020

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LAB N° 1416 L

Acoustic absorption calculation in reverberation room according to UNI EN ISO 354:2003

Sample description:SHAPES - thickness30 mm
Mounting Type:Mounting A

Sample area: 10,97 m²
Reverberation room volume: 161,3 m³

f [Hz]	αS[-]
Frequency	Acoustic absorption coefficient values
100	0,09
125	0,18
160	0,25
200	0,32
250	0,43
315	0,58
400	0,77
500	0,90
630	0,97
800	1,00
1000	1,00
1250	0,95
1600	0,95
2000	0,90
2500	0,85
3150	0,78
4000	0,77
5000	0,73

Evaluation based on laboratory measurement results by means of a technical method.

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LAB N° 1416 L

Acoustic absorption calculation in reverberation room according to UNI EN ISO 11654:1998

Sample description:SHAPES - thickness30 mm
Mounting Type:Mounting A

Sample area: 10,97m^2
Reverberation room volume: 161,3 m^3

f [Hz]	α_p[-]
Frequency	*Practical acoustic absorption coefficient values*
125	0,15
250	0,45
500	0,90
1000	1,00
2000	0,90
4000	0,75
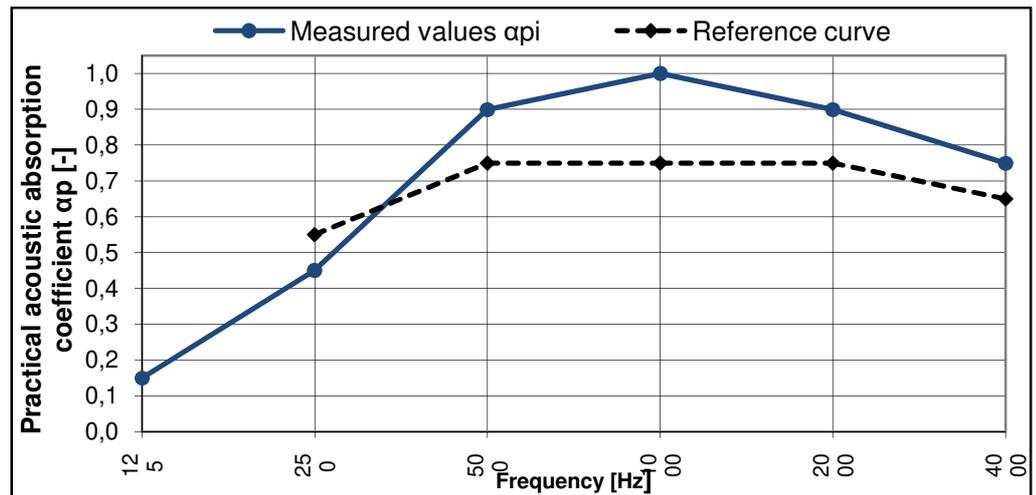
STANDARD EVALUATION INDEX:

α_w	0,75 (M) CLASS C	*Weighted acoustic sound absorption coefficient and shape indicator * Sound Absorption Class ** *	*UNI EN ISO 11654:1998*

Evaluation based on laboratory measurement results by means of a technical method.

* It is strongly recommended to use this unique rating index in combination with the curve of the full acoustic absorption coefficient.

** Classification of acoustic absorbers: The unique α_w evaluation index is used to calculate the absorption class according to the following table:

CLASS	α_w
A	0.9 - 0.95 - 1.00
B	0.8 - 0.85
C	0.6 - 0.65 - 0.7 - 0.75
D	da 0.3 a 0.55
E	0.15 - 0.2 - 0.25
NC	0.00 - 0.05 - 0.1

Laboratory Manager, Ing. Antonio Scofano

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