

Measurement of sound absorption coefficient according to DIN EN ISO 354

Measurement protocol



General test specimen description according to the manufacturer:

Active Core 20 mm

WOOL

40 mm layer of Isolena sheep's wool insulation

Construction with a 140 mm air gap to the sound-reflective substrate

Test surface enclosed by a wood-based material frame

No. Curve: Kurve (1)

Manufacturer: ORGANOID GmbH

Designation: Active Core 20

Description of test setup:

Quantity: 3 pcs
Length: 3050 mm
Width: 1300 mm
Product height: 20 mm
Total height: 200 mm
Total test area: 11,90 m²

Test standard requirements:

Sound absorption coefficient

α_w

Corresponds to ISO 354:

yes

More information:

Figure/Photo - Measurement setup



Reverberation chamber and measurement method:

Measuring method: Sinus Sweep

Vol. echo chamber: 391,6 m³

Room surface echo chamber:

322,2 m²

Rel. humidity meas. empty: 47 %

Rel. humidity meas. with test specimen:

49,7 %

Temp. meas. empty: 17,3 °C

Temp. measurement with test specimen:

18,0 °C

Air pressure empty: 98,6 kPa

Air pressure with test specimen:

98,5 kPa

Display:

Curve thirds: yes

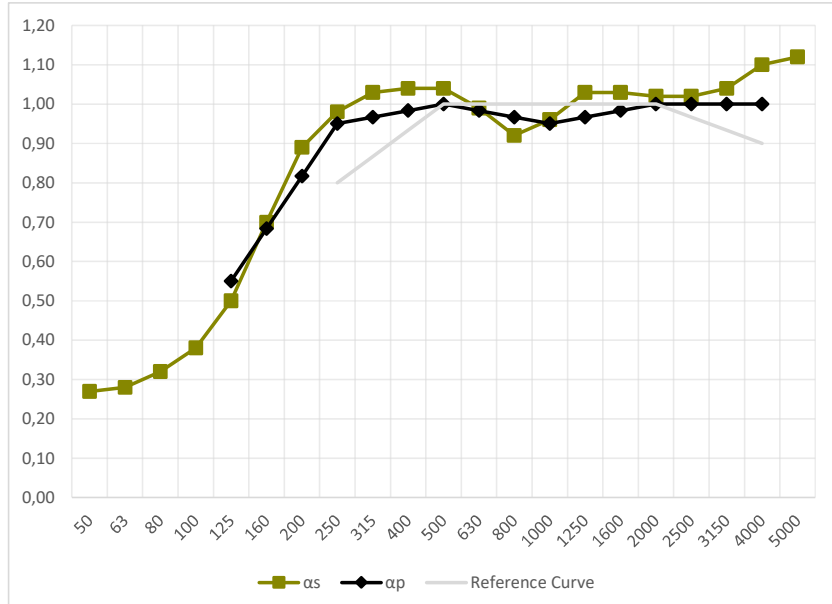
Curve octaves: yes

Reference curve: yes



Sound absorption coefficient α for each frequency f (Hz)

Frequency f (Hz)	Thirds α_s (-)	Octaves α_p (-)
50	0,27	
63	0,28	0,30
80	0,32	
100	0,38	
125	0,50	0,55
160	0,70	
200	0,89	
250	0,98	0,95
315	1,03	
400	1,04	
500	1,04	1,00
630	0,99	
800	0,92	
1000	0,96	0,95
1250	1,03	
1600	1,03	
2000	1,02	1,00
2500	1,02	
3150	1,04	
4000	1,10	1,00
5000	1,12	



Evaluation according to DIN EN ISO 11654:

α_w	1,00	()
Class	A	()

Single number rating according to ASTM C423-23:

NRC	1,00
SAA	1,00

Test date: 15.04.2026

Examiner:

Uwe Gottschald

Creation data sheet:

Uwe Gottschald

Laboratory: Laboratory for acoustics; Fuchs Raumingenieure; Tillystraße 2, 90431 Nuremberg; Germany