

Frequency 60 x 60 x 4

SOUND ABSORPTION COEFFICIENT ACCORDING TO SS-EN ISO 354:2003 AND SS-EN ISO 11654:1997

Measurement of sound absorption coefficient in a reverberation room



Report number:
21-738-M3
Date
2021-10-29

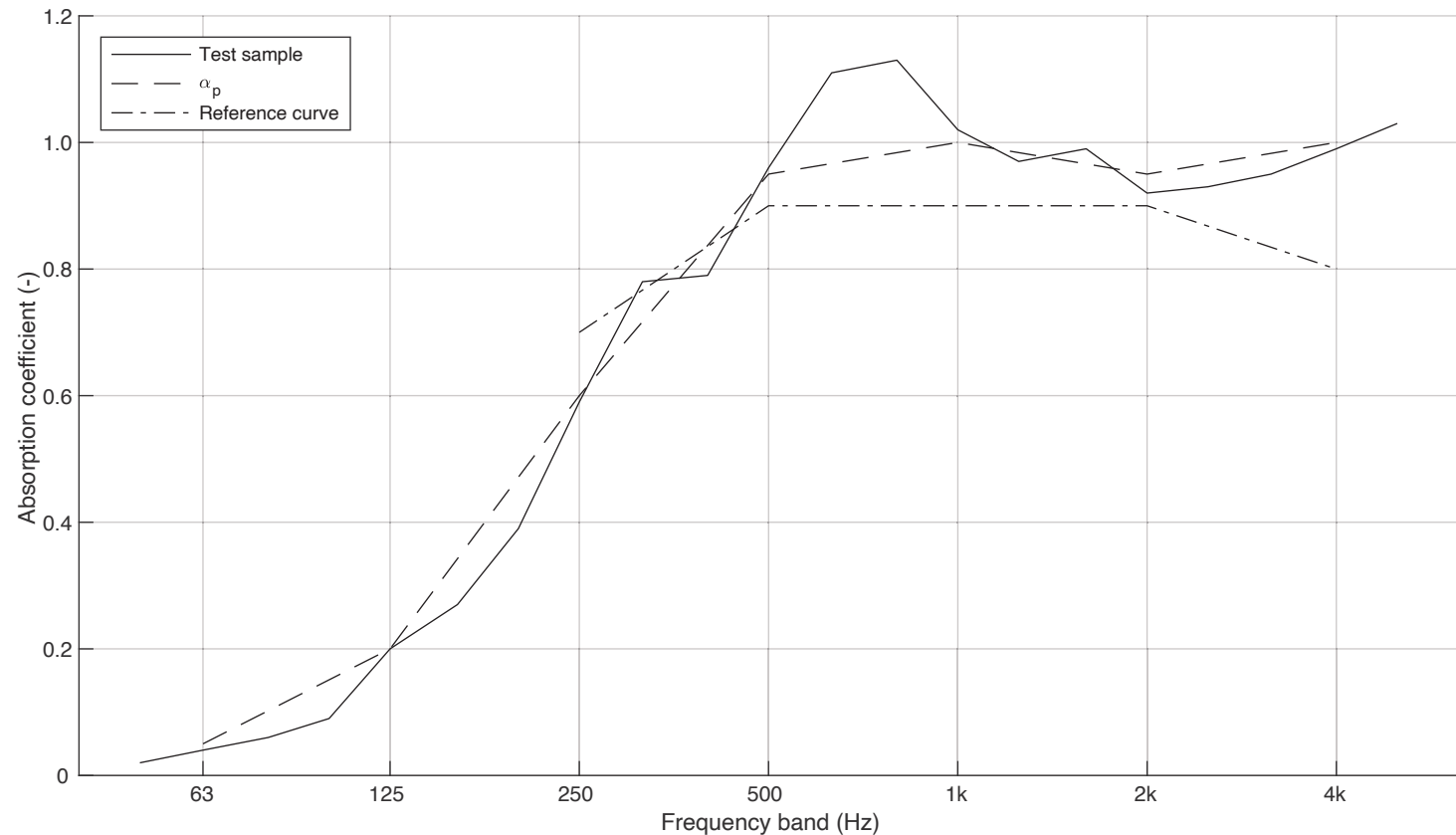
Frequency f [Hz]	Sound absorption coefficient	
	α_s	α_p
50	0.02	
63	0.04	0.05
80	0.06	
100	0.09	
125	0.20	0.20
160	0.27	
200	0.39	
250	0.59	0.60
315	0.78	
400	0.79	
500	0.96	0.95
630	1.11	
800	1.13	
1000	1.02	1.00
1250	0.97	
1600	0.99	
2000	0.92	0.95
2500	0.93	
3150	0.95	
4000	0.99	1.00
5000	1.03	

Client: Decibel by Johansson
 Manufacturer: Decibel by Johansson
 Product identification: Frequency 60 x 60 x 4

Description of test specimen: Sound absorbing panel made of an MDF base plate with glass wool and polyether filling covered with fabric. The height when mounted on the wall is 52 mm. Tested directly on the floor.

Reverberation room volume: 200 m³
 Temperature: 17.6 °C (empty: 17.2 °C)
 Air humidity: 50 % (empty: 52 %)
 Air pressure: 98.7 kPa (empty: 98.8 kPa)
 Size of specimen: 10.3 m²

Measurement date: 2021-10-12
 Measured by: Joachim Schubert



$\alpha_w = 0.90$

Absorption class = A

Frequency 60 x 60 x 8

SOUND ABSORPTION COEFFICIENT ACCORDING TO SS-EN ISO 354:2003 AND SS-EN ISO 11654:1997

Measurement of sound absorption coefficient in a reverberation room



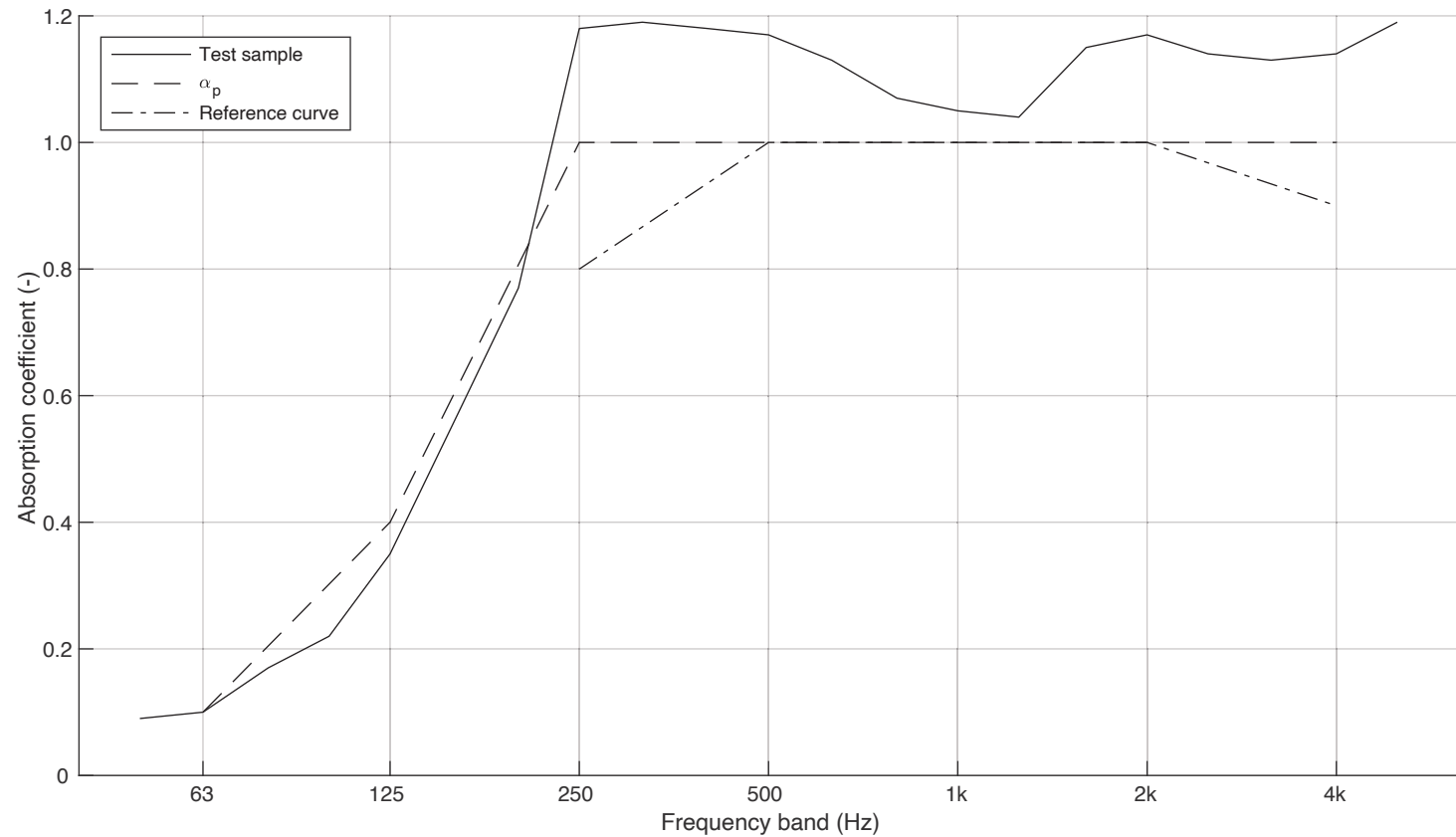
Report number:
21-738-M4
Date
2021-10-29

Frequency f [Hz]	Sound absorption coefficient	
	α_s	α_p
50	0.09	
63	0.10	0.10
80	0.17	
100	0.22	
125	0.35	0.40
160	0.57	
200	0.77	
250	1.18	1.00
315	1.19	
400	1.18	
500	1.17	1.00
630	1.13	
800	1.07	
1000	1.05	1.00
1250	1.04	
1600	1.15	
2000	1.17	1.00
2500	1.14	
3150	1.13	
4000	1.14	1.00
5000	1.19	

Client: Decibel by Johansson
 Manufacturer: Decibel by Johansson
 Product identification: Frequency 60 x 60 x 8

Description of test specimen: Sound absorbing panel made of an MDF base plate with glass wool and polyether filling covered with fabric. The height when mounted on the wall is 92 mm. Tested directly on the floor.

Reverberation room volume: 200 m³
 Temperature: 17.9 °C (empty: 17.2 °C)
 Air humidity: 51 % (empty: 52 %)
 Air pressure: 98.7 kPa (empty: 98.8 kPa)
 Size of specimen: 10 m²
 Measurement date: 2021-10-12
 Measured by: Joachim Schubert



$\alpha_w = 1.00$

Absorption class = A

Frequency 60 x 60 x 12

SOUND ABSORPTION COEFFICIENT ACCORDING TO SS-EN ISO 354:2003 AND SS-EN ISO 11654:1997

Measurement of sound absorption coefficient in a reverberation room



Report number:
21-738-M5
Date
2021-10-29

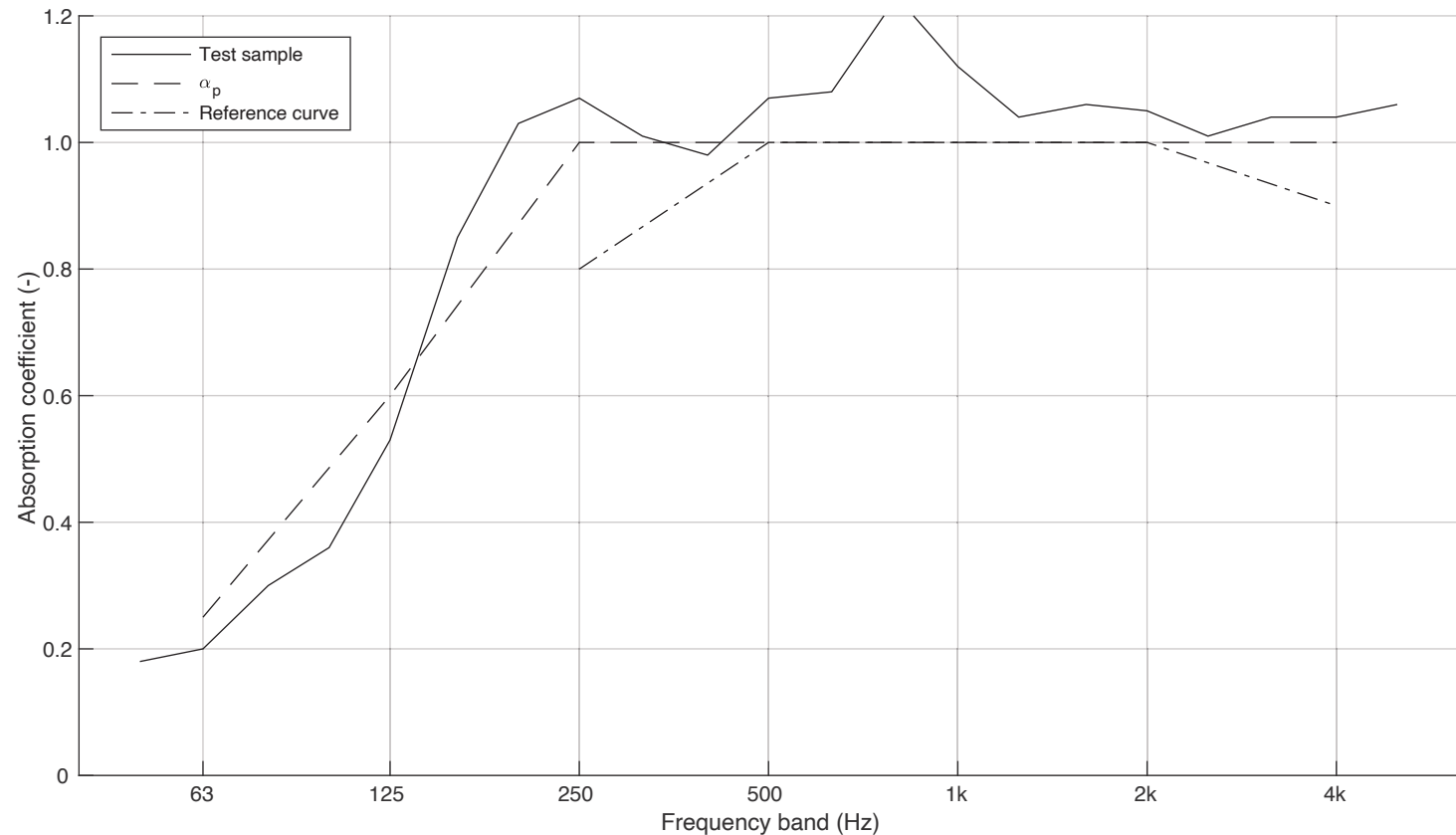
Frequency f [Hz]	Sound absorption coefficient	
	α_s	α_p
50	0.18	
63	0.20	0.25
80	0.30	
100	0.36	
125	0.53	0.60
160	0.85	
200	1.03	
250	1.07	1.00
315	1.01	
400	0.98	
500	1.07	1.00
630	1.08	
800	1.23	
1000	1.12	1.00
1250	1.04	
1600	1.06	
2000	1.05	1.00
2500	1.01	
3150	1.04	
4000	1.04	1.00
5000	1.06	

Client: Decibel by Johansson
 Manufacturer: Decibel by Johansson
 Product identification: Frequency 60 x 60 x 12

Description of test specimen: Sound absorbing panel made of an MDF base plate with glass wool and polyether filling covered with fabric. Maximum height when mounted on the wall is 132 mm. Tested directly on the floor.

Reverberation room volume: 200 m³
 Temperature: 17.8 °C (empty: 17.2 °C)
 Air humidity: 50 % (empty: 52 %)
 Air pressure: 98.7 kPa (empty: 98.8 kPa)
 Size of specimen: 10.3 m²

Measurement date: 2021-10-12
 Measured by: Joachim Schubert



$\alpha_w = 1.00$

Absorption class = A

Frequency 60 x 60, 3 x 2 panels with mixed height

SOUND ABSORPTION AREA ACCORDING TO SS-EN ISO 354:2003, SS 25269:2013 and ISO 20189:2018

Measurement of sound absorption area in a reverberation room



Report number:
21-738-M6
Date
2021-10-29

Frequency f [Hz]	Sound absorption area per object [m ² Sabine]	
50	0.14	
63	0.21	0.24
80	0.38	
100	0.46	
125	1.07	1.0
160	1.49	
200	2.19	
250	2.33	2.4
315	2.58	
400	2.61	
500	2.96	2.8
630	2.79	
800	3.03	
1000	2.78	2.8
1250	2.67	
1600	2.67	
2000	2.50	2.6
2500	2.61	
3150	2.53	
4000	2.60	2.7
5000	2.85	

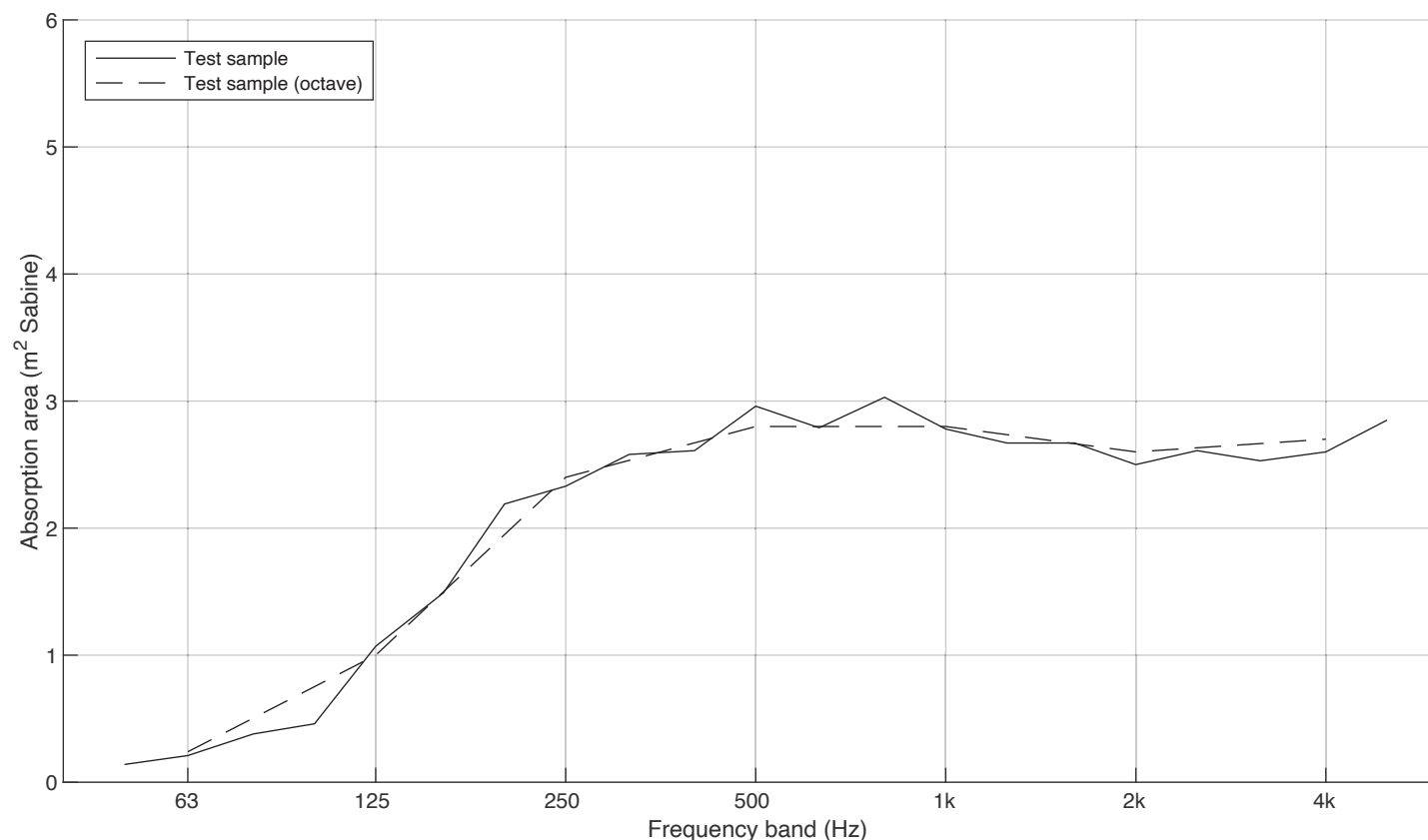
Client: Decibel by Johansson
 Manufacturer: Decibel by Johansson
 Product identification: Frequency 60 x 60, 3x2 panels with mixed height

Description of test specimen: Sound absorbing panels made of an MDF base plate with glass wool and polyether filling covered with fabric. Measurement results applies to one object of 6 panels (1785 x 1190 mm). The height when mounted on the wall is 52-132 mm. Tested directly on the floor.

Reverberation room volume: 200 m³
 Temperature: 17.6 °C (empty: 17.2 °C)
 Air humidity: 51 % (empty: 52 %)
 Air pressure: 98.7 kPa (empty: 98.8 kPa)
 Number of objects: 2

Measurement date: 2021-10-12
 Measured by: Joachim Schubert

$$N_{10} = 3.8$$



Frequency 60 x 60 x 8, 3 x 2 panels

SOUND ABSORPTION AREA ACCORDING TO SS-EN ISO 354:2003, SS 25269:2013 and ISO 20189:2018

Measurement of sound absorption area in a reverberation room



Report number:
21-738-M7
Date
2021-10-29

Frequency f [Hz]	Sound absorption area per object [m ² Sabine]	
50	0.14	
63	0.18	0.23
80	0.37	
100	0.49	
125	0.94	0.88
160	1.21	
200	1.48	
250	2.71	2.4
315	3.05	
400	2.85	
500	2.84	2.8
630	2.81	
800	2.81	
1000	2.68	2.7
1250	2.57	
1600	2.73	
2000	2.70	2.7
2500	2.71	
3150	2.53	
4000	2.75	2.7
5000	2.84	

Client: Decibel by Johansson
 Manufacturer: Decibel by Johansson
 Product identification: Frequency 60 x 60 x 8

Description of test specimen: Sound absorbing panels made of an MDF base plate with glass wool and polyether filling covered with fabric. Measurement results applies to one object of 6 panels (1785 x 1190 mm). The height when mounted on the wall is 92 mm. Tested directly on the floor.

Reverberation room volume: 200 m³
 Temperature: 17.8 °C (empty: 17.2 °C)
 Air humidity: 51 % (empty: 52 %)
 Air pressure: 98.7 kPa (empty: 98.8 kPa)
 Number of objects: 2
 Measurement date: 2021-10-12
 Measured by: Joachim Schubert

$$N_{10} = 3.7$$

