SLG Prüf- und Zertifizierungs GmbH

Test Report

4024-20-AA-21-PB003

Test Procedure: Determination and Rating of Sound Absorption according to ISO 354 and ISO 11654

Mounting type: type G-100 (distance 100 mm to the wall)

Test Item: Curtain and Decoration Fabric
Type: 9779, black

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Sound Absorption Coefficient ISO 354

Measurement of sound absorption in reverberation rooms

SLG Prüf- und Zertifizierungs GmbH

Test Item: curtain and decoration fabric, test item „Type: 9779, black“

Material Details: 2 pieces of fabric, each with (W x H): 2x 4,00 m x 3,00 m = 24,00 m²
Material: 80 % Cotton and 20 % Viscose
Mass per unit area : 500 g/m²

Mounting: Mounting type G-100 (distance 100 mm to the wall) acc. to ISO 354
test surface, flat without folding (W x H): 4,00 m x 3,00 m = 12,00 m²

Test Stand: Reverberation room of SLG Prüf- und Zertifizierungs GmbH, Hartmannsdorf, Germany

Diffusers: 10 pcs plates of acrylic glass, thickness 10 mm; total surface one-sided S = 19,1 m²

Absorber: 1 pc Sound Cell UBB Broadband absorber (dimensions 840 mm x 1.240 mm x 120 mm)
2 pcs Low-frequency-membrane absorber (dimensions 680 mm x 1.020 mm x 120 mm)

Test signal: sinusoidal sweep, 2 pcs loudspeaker positions und 4x 6 pcs microphone positions

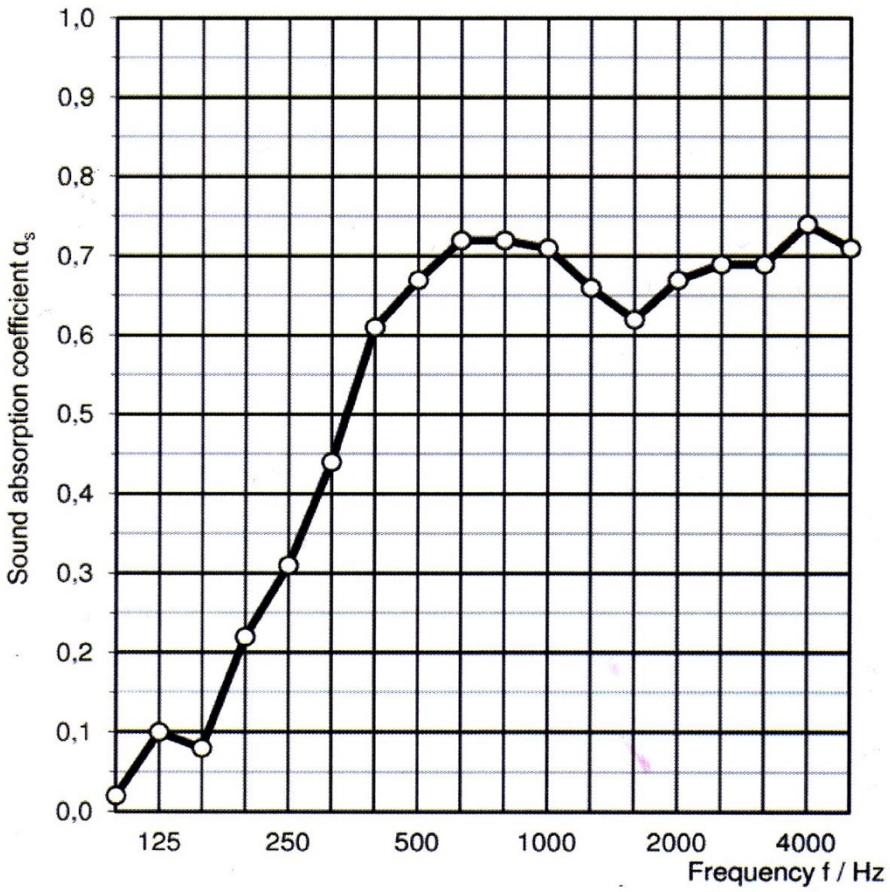
Volume: 254,5 m³

Base area: 47,5 m²

Date of test: 2021-05-28

	θ [°C]	r.H. [%]	B [hPa]
without test item	21,7	60,9	973
with test item	21,7	60,9	973

Frequency [Hz]	α_S 1/3 octave	α_p 1/1 octave
100	○ 0,02	
125	0,10	0,05
160	○ 0,08	
200	0,22	
250	0,31	0,30
315	0,44	
400	0,61	
500	0,67	0,65
630	0,72	
800	0,72	
1000	0,71	0,70
1250	0,66	
1600	0,62	
2000	0,67	0,65
2500	0,69	
3150	0,69	
4000	0,74	0,70
5000	0,71	



○ Equivalent sound absorption area less than 1,0 m²
α_S Sound absorption coefficient according to ISO 354
α_p Practical sound absorption coefficient according to ISO 11654

Rating according to ISO 11654

Weighted sound absorption coefficient: **α_w = 0,6**

Sound absorption class: **C**

Tested by: C. Schädlich
Erik Schädlich

Appendix 2

Test-Protocol.: 4024-20-AA-21-PP008

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Sound Absorption Coefficient ISO 354
Measurement of sound absorption in reverberation rooms

SLG Prüf- und Zertifizierungs GmbH

Test Item: curtain and decoration fabric, test item „Type: 9779, black"

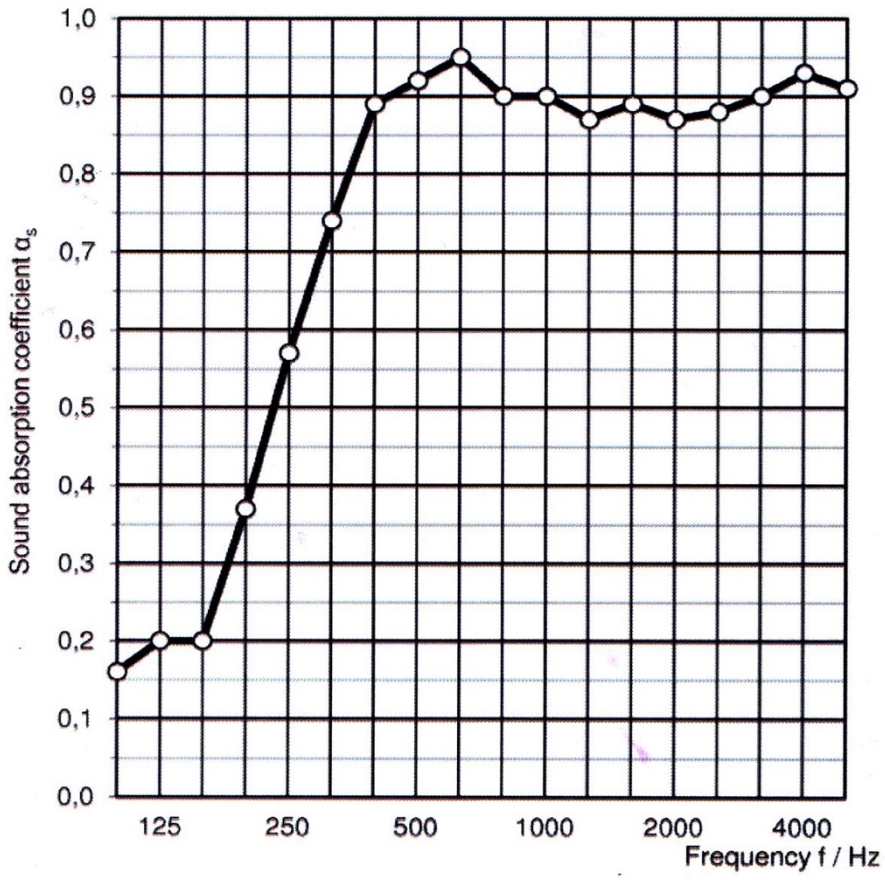
Material Details: 2 pieces of fabric, each with (W x H): 2x 4,00 m x 3,00 m = 24,00 m²
Material: 80 % Cotton and 20 % Viscose
Mass per unit area : 500 g/m²

Mounting: Mounting type G-100 (distance 100 mm to the wall) acc. to ISO 354
test surface, gathered with 100% addition (W x H): 4,00 m x 3,00 m = 12,00 m²

Test Stand: Reverberation room of SLG Prüf- und Zertifizierungs GmbH, Hartmannsdorf, Germany
Diffusers: 10 pcs plates of acrylic glass, thickness 10 mm; total surface one-sided S = 19,1 m²
Absorber: 1 pc Sound Cell UBB Broadband absorber (dimensions 840 mm x 1.240 mm x 120 mm)
2 pcs Low-frequency-membrane absorber (dimensions 680 mm x 1.020 mm x 120 mm)
Test signal: sinusoidal sweep, 2 pcs loudspeaker positions und 4x 6 pcs microphone positions
Volume: 254,5 m³
Base area: 47,5 m²
Date of test: 2021-05-28

	θ [°C]	r.H. [%]	B [hPa]
without test item	21,7	60,9	973
with test item	21,7	60,9	973

Frequency [Hz]	α_s 1/3 octave	α_p 1/1 octave
100	0,16	
125	0,20	0,20
160	0,20	
200	0,37	
250	0,57	0,55
315	0,74	
400	0,89	
500	0,92	0,90
630	0,95	
800	0,90	
1000	0,90	0,90
1250	0,87	
1600	0,89	
2000	0,87	0,90
2500	0,88	
3150	0,90	
4000	0,93	0,90
5000	0,91	



○ Equivalent sound absorption area less than 1,0 m²
α_s Sound absorption coefficient according to ISO 354
α_p Practical sound absorption coefficient according to ISO 11654

Rating according to ISO 11654

Weighted sound absorption coefficient: α_w = **0,85**

Sound absorption class: **B**

Tested by: C. Schädlich
Erik Schädlich

Appendix 1

Test-Protocol.: 4024-20-AA-21-PP007

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