Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

Client: Annette Douglas Textiles AG
Klosterstr. 42, CH - 5430 Wettingen

Test specimen: Fabric Snoozer
Wall distance 150 mm, folded arrangement (100 % fabric addition)

Curtain fabric:

- curtain fabric Snoozer
- area-related mass m'' = 103 g/m²
- airflow resistance R_S = 504 Pa s/m
- thickness t = 0.29 mm

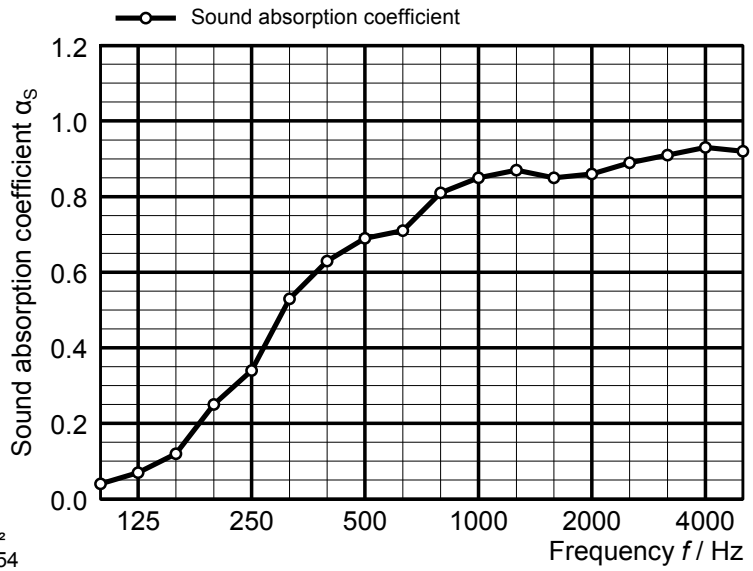
Tested arrangement:

- mounting type following G-150 acc. to EN ISO 354, without enclosing frame
- two curtains with width x height = 3570 mm x 3000 mm arrangement with 20 mm overlap
- fixed directly underneath the ceiling on a 50 mm high metal rail
- wall distance 150 mm
- test surface width x height = 3560 mm x 2950 mm (starting at the lower edge of the metal rail)

Room: E
Volume: 199.60 m³
Size: 10.50 m²
Date of test: 2017-04-25

	θ [°C]	r. h. [%]	B [kPa]
without specimen	19.8	35.4	94.3
with specimen	20.0	38.0	94.4

Frequency [Hz]	α_S 1/3 octave	α_p octave
100	◦ 0.04	
125	◦ 0.07	0.10
160	0.12	
200	0.25	
250	0.34	0.35
315	0.53	
400	0.63	
500	0.69	0.70
630	0.71	
800	0.81	
1000	0.85	0.85
1250	0.87	
1600	0.85	
2000	0.86	0.85
2500	0.89	
3150	0.91	
4000	0.93	0.90
5000	0.92	



◦ 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:	Rating according to ASTM C423:
Weighted sound absorption coefficient α_w = 0.65 (*H*)	**Noise Reduction Coefficient *NRC* = 0.70**
Sound absorption class: C	**Sound Absorption Average *SAA* = 0.69**

Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

Client: Annette Douglas Textiles AG
Klosterstr. 42, CH - 5430 Wettingen

Test specimen: Fabric Snoozer
Mounting type G-150, flat arrangement

Curtain fabric:

- curtain fabric Snoozer
- area-related mass m'' = 103 g/m²
- airflow resistance R_S = 504 Pa s/m
- thickness t = 0.29 mm

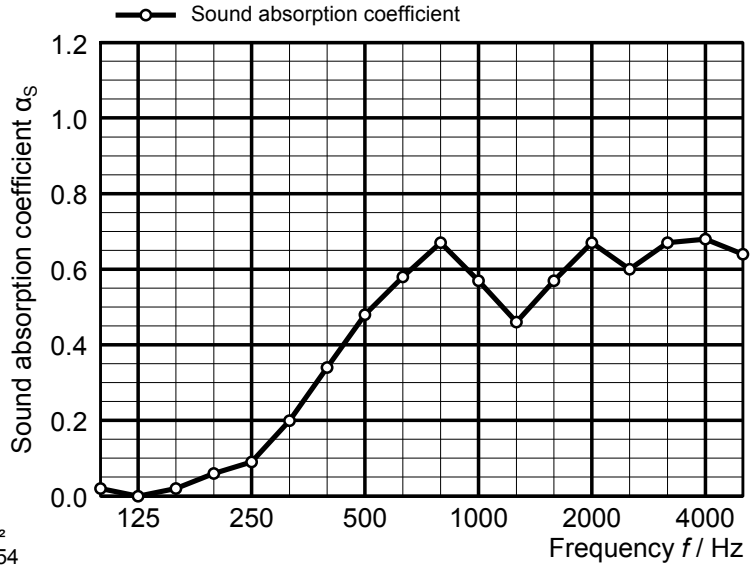
Tested arrangement:

- mounting type G-150 acc. to EN ISO 354, without enclosing frame
- one curtain width x height = 3570 mm x 3000 mm
- fixed directly underneath the ceiling on a 50 mm high metal rail
- wall distance 150 mm
- test surface width x height = 3570 mm x 2950 mm (starting at the lower edge of the metal rail)

Room: E
Volume: 199.60 m³
Size: 10.53 m²
Date of test: 2017-04-25

	θ [°C]	r. h. [%]	B [kPa]
without specimen	19.8	35.4	94.3
with specimen	19.9	36.0	94.3

Frequency [Hz]	α_S 1/3 octave	α_p octave
100	◦ 0.02	
125	◦ 0.00	0.00
160	◦ 0.02	
200	◦ 0.06	
250	◦ 0.09	0.10
315	0.20	
400	0.34	
500	0.48	0.45
630	0.58	
800	0.67	
1000	0.57	0.55
1250	0.46	
1600	0.57	
2000	0.67	0.60
2500	0.60	
3150	0.67	
4000	0.68	0.65
5000	0.64	



◦ 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:	Rating according to ASTM C423:
Weighted sound absorption coefficient α_w = 0.40 (*H*)	**Noise Reduction Coefficient *NRC* = 0.45**
Sound absorption class: D	**Sound Absorption Average *SAA* = 0.44**