

Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

Client: Annette Douglas Textiles AG, Klosterstrasse 42, CH-5430 Wettingen**Test no:** 1**Test specimen:** Curtain fabric SOUNDdimmer pro,
arranged hanging flat, 150 mm wall distance**Curtain fabric:***Information provided by the client*

- designation SOUNDdimmer pro
- material: 70 % PES FR recycled, 30 % PES FR
- area specific mass $m'' = 333 \text{ g/m}^2$

Properties determined by the testing laboratory at one A4-sized sample from test material:

- airflow resistance $R_S = 755 \text{ Pa s/m}$
- thickness $t = 1.09 \text{ mm}$

Test arrangement:

- mounting type G-150 acc. to DIN EN ISO 354
- curtain fabric hanging flat in front of a reflecting wall
- fixed directly underneath the ceiling of the reverberation room, suspended from a metal rail (height 90 mm, overlap 60 mm), distance to the back wall 150 mm
- test arrangement without enclosing frame
- fabric dimensions $W \times H = 3510 \text{ mm} \times 2930 \text{ mm}$
- test surface width x height = 3.51 m x 2.87 m (starting at the lower edge of the metal rail)

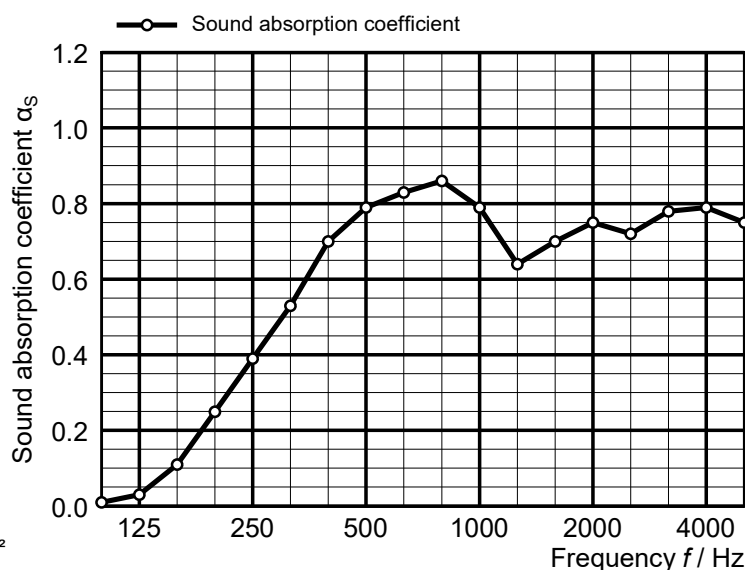
Room: E

Volume: 199.60 m³Size: 10.07 m²

Date of test: 2026-07-13

	θ [°C]	$r. h.$ [%]	B [kPa]
without specimen	24.7	47.2	95.4
with specimen	24.6	46.9	95.4

Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0.01	
125	0.03	0.05
160	0.11	
200	0.25	
250	0.39	0.40
315	0.53	
400	0.70	
500	0.79	0.75
630	0.83	
800	0.86	
1000	0.79	0.75
1250	0.64	
1600	0.70	
2000	0.75	0.70
2500	0.72	
3150	0.78	
4000	0.79	0.75
5000	0.75	

◦ 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

Product development only for internal use

Rating according to ISO 11654:
Weighted sound absorption coefficient
 $\alpha_w = 0,70$
Sound absorption class: C

Rating according to ASTM C423:
Noise Reduction Coefficient NRC = 0.70
Sound Absorption Average SAA = 0.66

Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

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

Test no: 2

Test specimen: Curtain fabric SOUNDdimmer pro,
arranged hanging pleated with 100 % fullness, 150 mm wall distance**Curtain fabric:***Information provided by the client*

- designation SOUNDdimmer pro
- material: 70 % PES FR recycled, 30 % PES FR
- area specific mass $m'' = 333 \text{ g/m}^2$

Properties determined by the testing laboratory at one A4-sized sample from test material:

- airflow resistance $R_s = 755 \text{ Pa s/m}$
- thickness $t = 1.09 \text{ mm}$

Test arrangement:

- style of type G-150 mounting acc. to DIN EN ISO 354
- curtain fabric hanging pleated with 100 % fullness in front of a reflecting wall
- fixed directly underneath the ceiling of the reverberation room, suspended from a metal rail (height 90 mm, overlap 60 mm), distance to the back wall 150 mm
- test arrangement without enclosing frame
- two curtain webs, fabric dimensions each $W \times H = 3510 \text{ mm} \times 2930 \text{ mm}$, with 20 mm overlap at vertical web joint
- test surface width x height = 3.50 m x 2.87 m (starting at the lower edge of the metal rail)

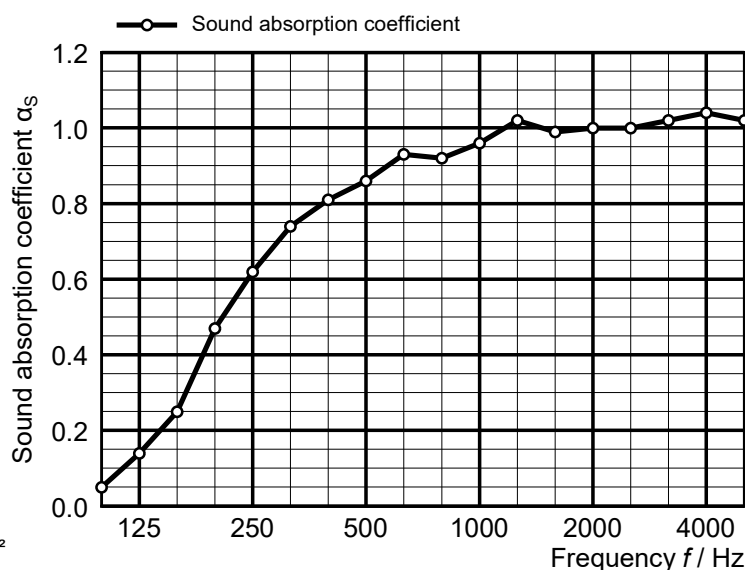
Room: E

Volume: 199.60 m³Size: 10.05 m²

Date of test: 2026-07-13

	θ [°C]	$r. h.$ [%]	B [kPa]
without specimen	24.7	47.2	95.4
with specimen	24.6	47.3	95.4

Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0.05	
125	0.14	0.15
160	0.25	
200	0.47	0.60
250	0.62	
315	0.74	
400	0.81	0.85
500	0.86	
630	0.93	
800	0.92	0.95
1000	0.96	
1250	1.02	
1600	0.99	1.00
2000	1.00	
2500	1.00	
3150	1.02	1.00
4000	1.04	
5000	1.02	

◦ 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

Product development only for internal use

Rating according to ISO 11654:
Weighted sound absorption coefficient
 $\alpha_w = 0.85 (H)$
Sound absorption class: B

Rating according to ASTM C423:
Noise Reduction Coefficient $NRC = 0.85$
Sound Absorption Average $SAA = 0.86$