

# Sound absorption coefficient ISO 354

## Measurement of sound absorption in reverberation rooms

**Client:** Silent Gliss Fabrics & Components GmbH  
Rheinauenstr. 8, 79415 Bad Bellingen, Germany

**Test specimen:** Curtain fabric Levisio Light  
folded arrangement with 100 % fabric addition, wall distance 100 mm

**Fabric:**

- curtain fabric type: Levisio Light
- material: polyester FR
- area related mass  $m'' = 300 \text{ g/m}^2$  (manufacturer's information)
- airflow resistance  $R_S = 1452 \text{ Pa s/m}$
- thickness  $t = 0.75 \text{ mm}$

**Test arrangement:**

- in the style of mounting type G-100 acc. to DIN EN ISO 354, set-up without enclosing frame
- folded arrangement with 100 % fabric addition
- one curtain web: width x height = 7.40 m x 2.96 m, suspended from a 50 mm high ceiling rail on the ceiling of the reverberation room
- 100 mm clear distance to the wall
- test surface width x height = 3.70 m x 2.91 m (starting from the lower border of the metal rail)

Room: E

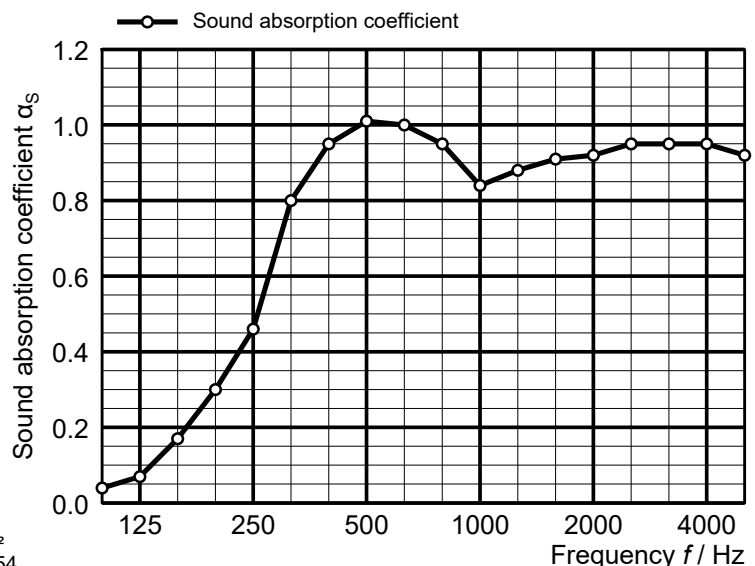
Volume: 199.60 m<sup>3</sup>

Size: 10.77 m<sup>2</sup>

Date of test: 2017-12-13

	$\theta$ [°C]	$r. h.$ [%]	$B$ [kPa]
without specimen	19.7	31.7	94.6
with specimen	19.5	33.6	94.5

Frequency [Hz]	$\alpha_s$ 1/3 octave	$\alpha_p$ octave
100	0.04	
125	0.07	0.10
160	0.17	
200	0.30	
250	0.46	0.50
315	0.80	
400	0.95	
500	1.01	1.00
630	1.00	
800	0.95	
1000	0.84	0.90
1250	0.88	
1600	0.91	
2000	0.92	0.95
2500	0.95	
3150	0.95	
4000	0.95	0.95
5000	0.92	



◦ Equivalent sound absorption area less than 1.0 m<sup>2</sup>  
 $\alpha_s$  Sound absorption coefficient according to ISO 354  
 $\alpha_p$  Practical sound absorption coefficient according to ISO 11654

Rating according to ISO 11654: <b>Weighted sound absorption coefficient</b> $\alpha_w = 0.80 (H)$ Sound absorption class: B	Rating according to ASTM C423: <b>Noise Reduction Coefficient <math>NRC = 0.80</math></b> <b>Sound Absorption Average <math>SAA = 0.83</math></b>
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**MÜLLER-BBM**

Planegg, 2021-03-05

No. of test report M142973/2

Appendix A

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