

Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

Client: Artimo Textiles BV, De Meeten 53
4706 NK Roosendaal, The Netherlands

Test specimen: Curtain fabric Ombre
Folded arrangement (100 % fabric addition), 150 mm distance to reflective wall

Curtain fabric:

- manufacturer Artimo
- curtain fabric Ombre
- material 100 % Trevira
- area-related mass $m'' = 221 \text{ g/m}^2$
- airflow resistance $R_S = 268 \text{ Pa s/m}$
- thickness $t = 0.56 \text{ mm}$

Test arrangement:

- hanging in front of a reflecting wall with 150 mm distance
- fixed on a metal rail (height 50 mm) at the ceiling of the reverberation room
- test arrangement without enclosing frame
- factory-made ready-for-use, gathered curtain 6.90 m x 3.00 m, with 75 mm universal curtain tape, lateral hem 20 mm, lower hem 100 mm
- test surface width x height = 3.45 m x 2.95 m, 100 % fabric addition (starting at the lower edge of the metalrail)

Room: E

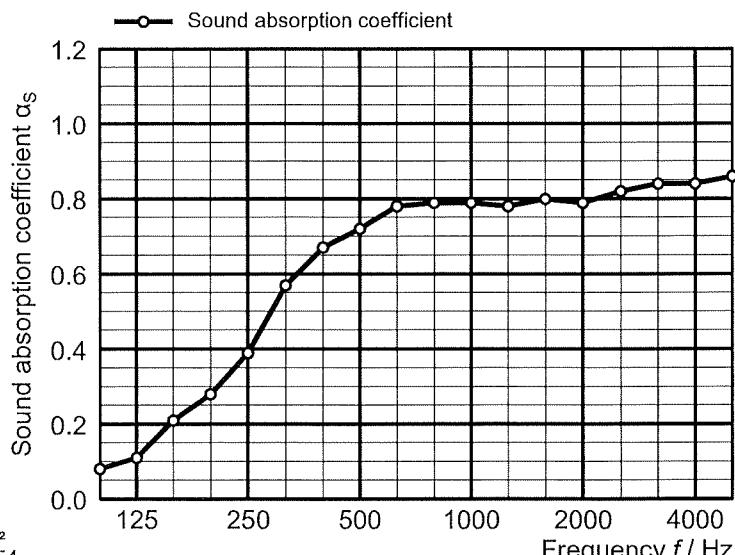
Volume: 199.60 m³

Size: 10.18 m²

Date of test: 2018-10-10

Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0.08	
125	0.11	0.15
160	0.21	
200	0.28	
250	0.39	0.40
315	0.57	
400	0.67	
500	0.72	0.70
630	0.78	
800	0.79	
1000	0.79	0.80
1250	0.78	
1600	0.80	
2000	0.79	0.80
2500	0.82	
3150	0.84	
4000	0.84	0.85
5000	0.86	

	θ [°C]	r. h. [%]	B [kPa]
without specimen	21.5	55.1	95.6
with specimen	21.5	55.4	95.5



○ 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
 $\alpha_w = 0.70 (H)$
Sound absorption class: C

Rating according to ASTM C423:
Noise Reduction Coefficient NRC = 0.65
Sound Absorption Average SAA = 0.68

MÜLLER-BBM

Planegg, 2019-05-02

No. of test report M141038/7

Appendix A
Page 4