Sound absorption coefficient ISO 354

Measurement of sound absorption in reverberation rooms

Client: Silent Gliss Fabrics & Components GmbH,
Rheinauenstraße 8, D-79415 Bad Bellingen

Test specimen: Curtain Colorama Akustik,
curtain track system Wave, wall distance 200 mm

Fabric:

- manufacturer Silent Gliss
- curtain fabric type "Colorama Akustik"
- material 100 % polyester
- area specific mass app. m'' = 131 g/m²
- specific airflow resistance R_S = 37 Pa s/m
- thickness t = 0.36 mm

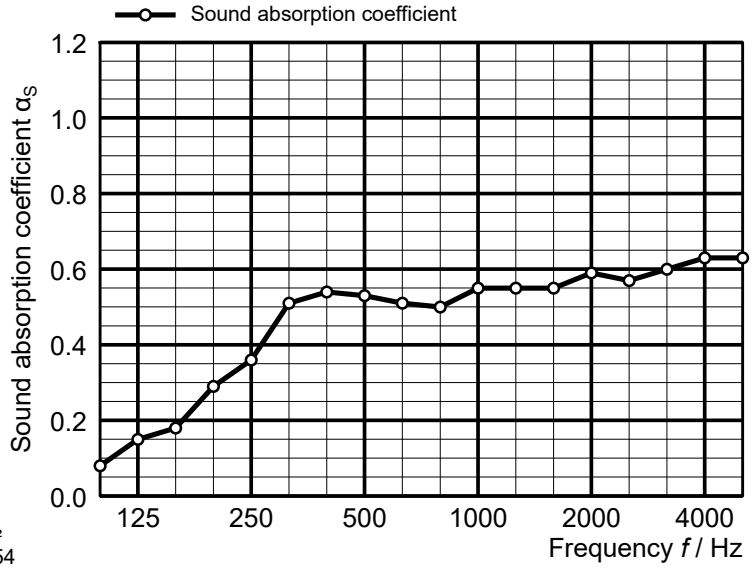
Test arragement:

- in style of mounting type G-200 acc. EN ISO 354, test arrangement without enclosing frame
- curtain fabric with total dimensions of W x H = 7000 mm x 2990 mm, top edge with 75 mm curtain tape, lateral edges with 20 mm hems
- Wave-mounting with 100 % fabric addition, width of curtain W = 3500 mm
- Wave-profile: 80 mm distance between fixing points at curtain rail
  depth of Wave-profile 120 mm (each 60 mm to both sides of the rail)
- fixed to a Wave curtain track system rail at the ceiling of the reverberation room
- 200 mm distance from the wall to the axis of the curtain rail
- Prüffläche W x H = 3500 mm x 2990 mm

Room: E
Volume: 199.60 m³
Size: 10.47 m²
Date of test: 2019-04-29

	θ [°C]	*r. h.* [%]	*B* [kPa]
without specimen	19.8	39.2	95.5
with specimen	19.8	39.4	95.5

Frequency [Hz]	α_S 1/3 octave	α_p octave
100	∘ 0.08	
125	0.15	0.15
160	0.18	
200	0.29	
250	0.36	0.40
315	0.51	
400	0.54	
500	0.53	0.55
630	0.51	
800	0.50	
1000	0.55	0.55
1250	0.55	
1600	0.55	
2000	0.59	0.55
2500	0.57	
3150	0.60	
4000	0.63	0.60
5000	0.63	



∘ 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 = 0.55	**Noise Reduction Coefficient *NRC* = 0.50**
Sound absorption class: D	**Sound Absorption Average *SAA* = 0.50**