

# Sound absorption coefficient ISO 354

## Measurement of sound absorption in reverberation rooms

**Client:** Verotex GmbH, Bahnhofstraße 38, D-95236 Stambach  
**Test specimen:** VEROSAFE® artikel No.: 12.121 Fb. 7 (lot 4202), company VEROTEX AG  
 Müller-BBM sample number: 7148

**Material details:**

- thickness  $t = 0.49$  mm
- specific airflow resistance according to EN 29053  $R_s = 996$  Pa s/m
- area specific mass  $m'' = 293$  g/m<sup>2</sup>
- total dimensions of the test surface width x height = 3.50 m x 3.00 m

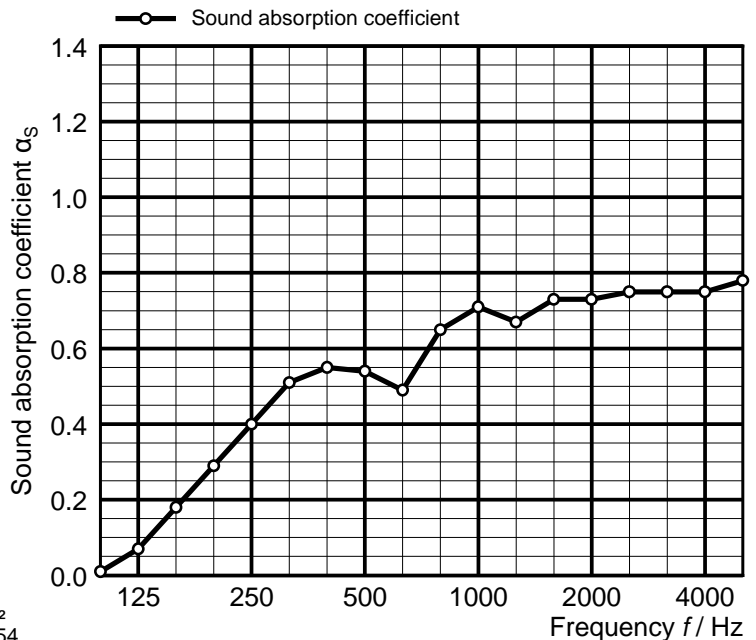
**Test arrangement:**

- test type G-200 according to EN ISO 354, section 6.2.1
- test set-up made of two single webs, 3.00 m x 2.10 m and 3.00 m x 1.42 m
- 20 mm overlap at curtain splices
- hanging plain on a metal rail at the ceiling of the reverberation room in front of a reflective wall
- 200 mm clear distance to the wall, arranged without enclosing frame

Room: E  
 Volume: 199.66 m<sup>3</sup>  
 Size: 10.50 m<sup>2</sup>  
 Date of test: 2009-10-02

	$\theta$ [°C]	r. h. [%]	$B$ [kPa]
without specimen	21.3	44.2	95.4
with specimen	21.2	44.1	95.4

Frequency [Hz]	$\alpha_s$ 1/3 octave	$\alpha_p$ octave
100	0.01	
125	0.07	0.10
160	0.18	
200	0.29	
250	0.40	0.40
315	0.51	
400	0.55	
500	0.54	0.55
630	0.49	
800	0.65	
1000	0.71	0.70
1250	0.67	
1600	0.73	
2000	0.73	0.75
2500	0.75	
3150	0.75	
4000	0.75	0.75
5000	0.78	



◦ 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> $\alpha_w = 0.60$ (H) Sound absorption class: C	Rating according to ASTM C423: <b>Noise Reduction Coefficient NRC = 0.60</b> <b>Sound Absorption Average SAA = 0.58</b>
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