

Sound absorption coefficient

Measurement of sound absorption in a reverberation room

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Test specimen: AMF-THERMATEX Mercure, 625x625mm

200 mm construction height

Test construction (from top to bottom):

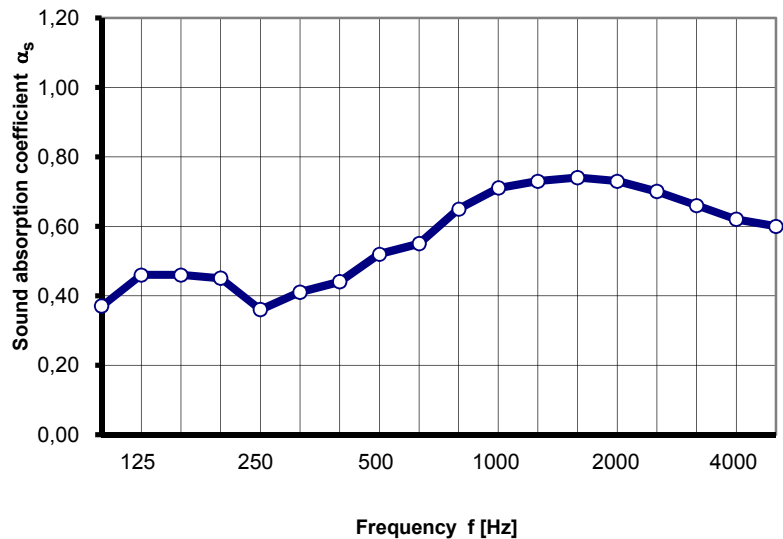
- 15,0 mm Test specimen with edge detail: SK
- 185 mm cavity, without damping material, with supporting construction floor of the reverberation room
- floor of the reverberation room

enclosing frame made of coated chipboard

joints between frame and ceiling tiles as well as between frame and floor sealed tightly



Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0,37	
125	0,46	0,45
160	0,46	
200	0,45	
250	0,36	0,40
315	0,41	
400	0,44	
500	0,52	0,50
630	0,55	
800	0,65	
1000	0,71	0,70
1250	0,73	
1600	0,74	
2000	0,73	0,70
2500	0,70	
3150	0,66	
4000	0,62	0,65
5000	0,60	



α_s Sound absorption coefficient

α_p Practical sound absorption coefficient according to ISO 11654

Rating according to ISO 11654:

Weighted sound absorption coefficient $\alpha_w = 0,60$

Sound absorption class: **C**

Rating according to VDI 3755 - 2000:

highly absorbing

Rating according to ASTM C 423-02a:

sound absorption average: SAA = 0,58

noise reduction coefficient: NRC = 0,60