

# Sound absorption coefficient

## Measurement of sound absorption in a reverberation room

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**Test specimen:** AMF-ECOMIN Orbit micro, 600x600mm

200 mm construction height

**Test construction (from top to bottom):**

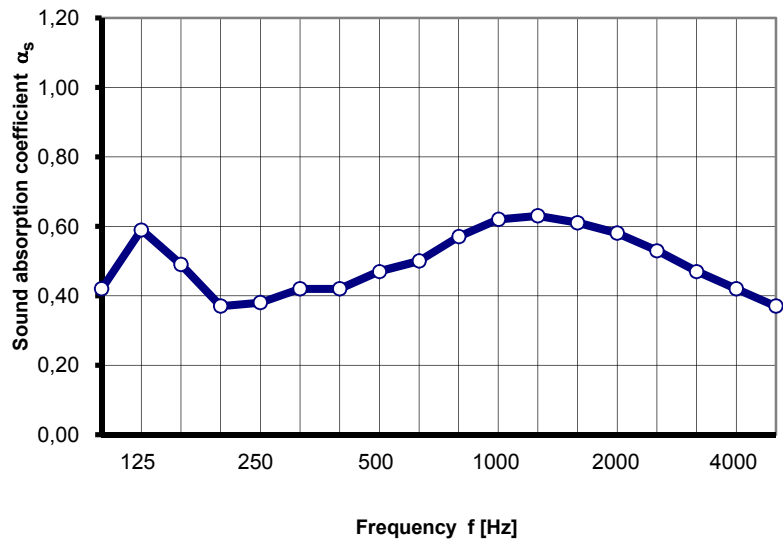
- 13,0 mm Test specimen with edge detail: SK
- 187 mm cavity, without damping material, with supporting construction floor of the reverberation room
- floor of the reverberation room

enclosing frame made of coated chipboard

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



Frequency [Hz]	$\alpha_s$ 1/3 octave	$\alpha_p$ octave
100	0,42	
<b>125</b>	0,59	<b>0,50</b>
160	0,49	
200	0,37	
<b>250</b>	0,38	<b>0,40</b>
315	0,42	
400	0,42	
<b>500</b>	0,47	<b>0,45</b>
630	0,50	
800	0,57	
<b>1000</b>	0,62	<b>0,60</b>
1250	0,63	
1600	0,61	
<b>2000</b>	0,58	<b>0,55</b>
2500	0,53	
3150	0,47	
<b>4000</b>	0,42	<b>0,40</b>
5000	0,37	



$\alpha_s$  Sound absorption coefficient

$\alpha_p$  Practical sound absorption coefficient according to ISO 11654

Rating according to ISO 11654:

**Weighted sound absorption coefficient  $\alpha_w = 0,50$**

Sound absorption class: **D**

Rating according to VDI 3755 - 2000:

**absorbing**

Rating according to ASTM C 423-02a:

**sound absorption average: SAA = 0,51**

**noise reduction coefficient: NRC = 0,50**