

Appendix 11

**Sound absorption coefficient according to EN-ISO 11654**

Measurement of sound absorption coefficient in a reverberation room

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Client: Saint Gobain Ecophon AB      Date of test: 2021-09-30  
 Description:

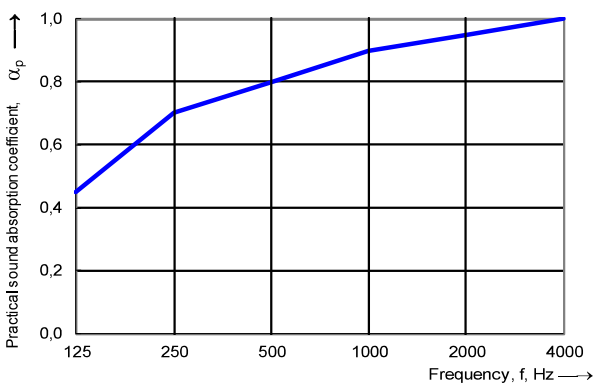
Object: Master Ds  
 Thickness 40 mm  
 ODS 200 mm

Empty reverberation room:      Reverberation room with object:

Relative humidity: 79,1 %      Relative humidity: 79,4 %  
 Temperature: 21,0 °C      Temperature: 21,4 °C  
 Barometric pressure: 99,2 kPa      Barometric pressure: 99,1 kPa

Surface area: 10,80 m<sup>2</sup>  
 Room volume: 200,0 m<sup>3</sup>  
 Total room area S<sub>i</sub>: 211,4 m<sup>2</sup>

Frequency f [Hz]	$\alpha_p$ 1/1 octave
100	
125	0,45
160	
200	
250	0,70
315	
400	
500	0,80
630	
800	
1000	0,90
1250	
1600	
2000	0,95
2500	
3150	
4000	1,00
5000	



The graph shows the practical sound absorption coefficient  $\alpha_p$  on the y-axis (ranging from 0.0 to 1.0) against Frequency  $f$  in Hz on the x-axis (logarithmic scale from 125 to 4000). A blue line connects the data points from the table, showing an increasing trend from approximately 0.45 at 125 Hz to 1.00 at 4000 Hz.

Weighted sound absorption coefficient according to ISO 11654

$\alpha_w = 0,90$       Classification: A