

Appendix 8

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

Measurement of sound absorption coefficient in a reverberation room

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Client: Saint-Gobain Eurocoustic  
 Description: Tonga E20  
 600 mm x 600 mm x 20 mm  
 ODS 200 mm

Date of test: 2020-12-08

Object:

Empty reverberation room:                      Reverberation room with object:

Relative humidity:                      78,3 %                      Relative humidity:                      76,4 %

Temperature:                      19,6 °C                      Temperature:                      20,1 °C

Barometric pressure:                      98,9 kPa                      Barometric pressure:                      98,9 kPa

Surface area:                      10,80 m<sup>2</sup>

Room volume:                      200,0 m<sup>3</sup>

Total room area S<sub>r</sub>:                      211,4 m<sup>2</sup>

Frequency f [Hz]	$\alpha_s$ 1/3 octave
50	0,07
63	0,07
80	0,08
100	0,26
125	0,26
160	0,55
200	0,69
250	0,91
315	0,93
400	1,00
500	0,98
630	1,00
800	0,89
1000	0,86
1250	0,95
1600	0,98
2000	1,00
2500	1,02
3150	1,04
4000	1,02
5000	1,02

↑  
ical sound absorption coefficient,  $\alpha_s$

Frequency, f, Hz →

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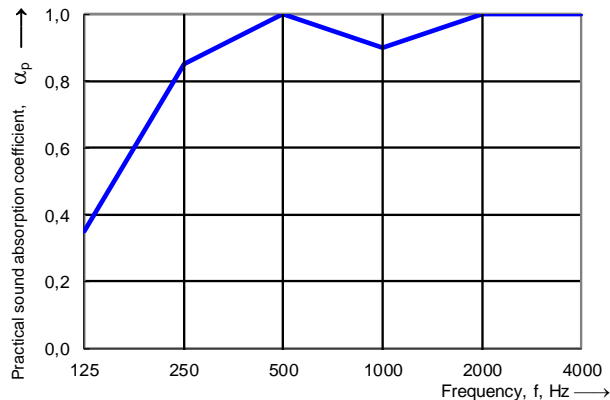
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 Description: Tonga E20  
 600 mm x 600 mm x 20 mm  
 ODS 200 mm  
 Date of test: 2020-12-08

Object:

Empty reverberation room:		Reverberation room with object:	
Relative humidity:	78,3 %	Relative humidity:	76,4 %
Temperature:	19,6 °C	Temperature:	20,1 °C
Barometric pressure:	98,9 kPa	Barometric pressure:	98,9 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	0,35
125	
160	
200	0,85
250	
315	
400	
500	1,00
630	
800	
1000	0,90
1250	
1600	
2000	1,00
2500	
3150	
4000	1,00
5000	



Weighted sound absorption coefficient according to ISO 11654

$\alpha_w = 1,00$

Classification: A