

Measurement of sound absorption in a reverberation chamber by *PN-EN ISO 354:2005*

Determination of the sound absorption coefficient on the basis of *PN-EN ISO 11654:1999*

2020-05-29

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Sample determination: LA 1343
Sample description: Acoustic PET boards 9 mm thick, laid on a layer of 40 mm basotec foam

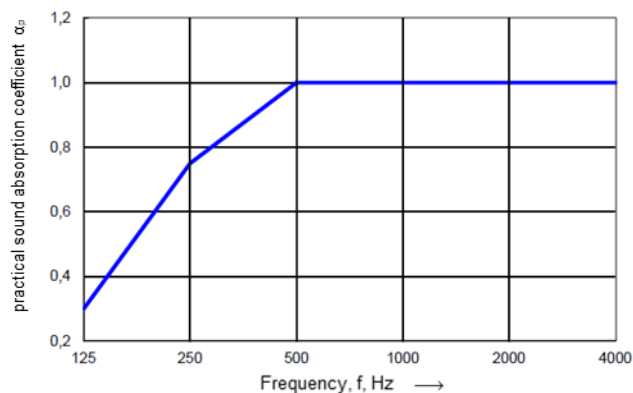
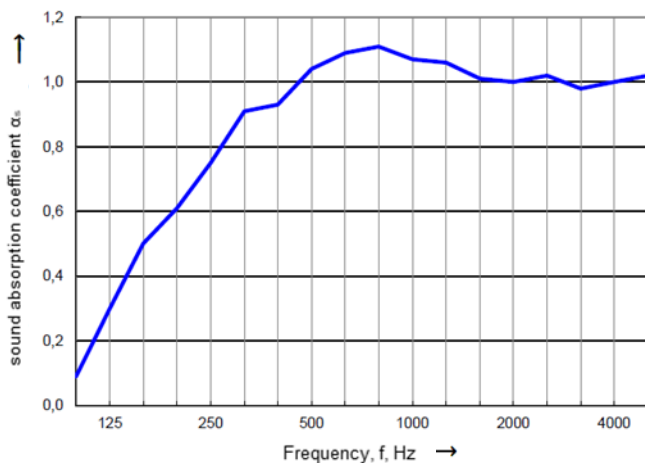
Environmental conditions:

Surface area: 10,47 m²
Reverberation chamber volume: 200,00 m³
Reverberation chamber, with sample: Reverberation chamber, empty:
Temperature: 18,9 °C
Relative humidity: 44,5 %
Atmospheric pressure: 102,9 kPa
Temperature: 18,9 °C
Relative humidity: 47,2 %
Atmospheric pressure: 102,9 kPa

f [Hz]	T_1 [s]	T_2 [s]	A_T [m ²]	α_s	α_p
100	5,7	4,8	1,0	0,09	0,30
125	5,9	3,8	3,1	0,30	
160	4,9	2,7	5,2	0,50	
200	4,6	2,4	6,4	0,61	0,75
250	4,4	2,1	7,9	0,75	
315	4,6	2,0	9,5	0,91	
400	4,5	1,9	9,7	0,93	1,00
500	4,8	1,8	10,9	1,04	
630	4,5	1,7	11,4	1,09	
800	4,2	1,7	11,6	1,11	1,00
1000	4,0	1,7	11,2	1,07	
1250	3,8	1,6	11,1	1,06	
1600	3,6	1,7	10,6	1,01	1,00
2000	3,4	1,6	10,5	1,00	
2500	3,0	1,5	10,7	1,02	
3150	2,5	1,4	10,3	0,98	1,00
4000	2,1	1,2	10,5	1,00	
5000	1,7	1,1	10,7	1,02	

C Labels

f - cz frequency, in tertian bands [Hz].
 T_1 - reverberation time of the reverberation chamber, empty [s]
 T_2 - reverberation time of the reverberation chamber, with sample [s]
 α_s - sound absorption coefficient
 α_p - practical sound absorption coefficient
 A_T - equivalent sound-absorbing surface area of the test sample [m²]



Sound absorption index and class according to *PN-EN ISO 11654:1999*

$\alpha_w = 1,00$

Sound absorption class: **A**

Test no: B134301
Date of test: 2020-05-29

Signed by: Adam Arentowicz