

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

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Sample determination: LA1905
Sample description: Fluffo ART sound absorbing wall panels, for wall hanging. Total thickness of the product 59mm (PET felt board backing (9mm), top layer of flock-covered polyurethane foam (50mm))

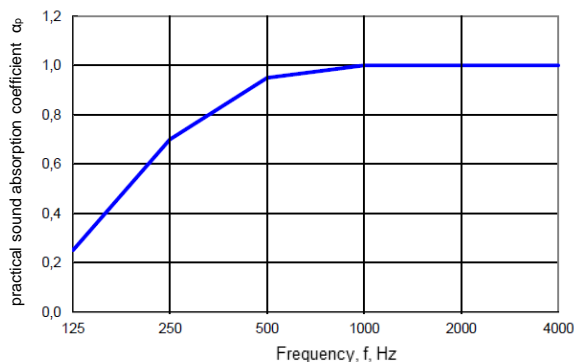
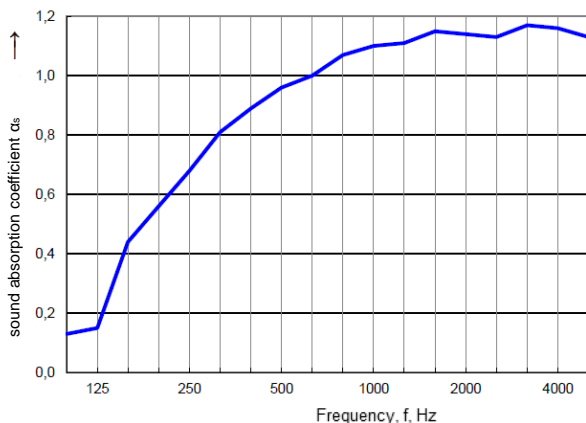
Environmental conditions:

Surface area: 10,29 m² Reverberation chamber, with sample: Reverberation chamber, empty:
Reverberation chamber volume: 200,00m³ Temperature: 19,3°C Temperature: 19,3°C
Relative humidity: 37,2 % Relative humidity: 37,2 %
Atmospheric pressure: 103,4 kPa Atmospheric pressure: 103,4 kPa

f [Hz]	T ₁ [s]	T ₂ [s]	A _T [m ²]	α _s	α _p
100	5,6	4,6	1,4	0,13	0,25
125	5,7	4,5	1,6	0,15	
160	5,2	3,0	4,5	0,44	
200	5,1	2,7	5,7	0,56	0,70
250	5,4	2,5	7,0	0,68	
315	5,5	2,3	8,4	0,81	
400	5,6	2,2	9,2	0,89	
500	5,6	2,1	9,9	0,96	0,95
630	5,2	2,0	10,2	1,00	
800	4,9	1,8	11,0	1,07	
1000	4,6	1,8	11,4	1,10	1,00
1250	4,3	1,7	11,5	1,11	
1600	4,1	1,6	11,9	1,15	
2000	3,7	1,6	11,8	1,14	1,00
2500	3,2	1,5	11,6	1,13	
3150	2,6	1,3	12,0	1,17	
4000	2,1	1,2	11,9	1,16	1,00
5000	1,6	1,0	11,6	1,13	

Labels

f - frequency, in tertian bands [Hz].
T₁ reverberation time of the reverberation chamber, empty [s]
T₂ 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

α_w = 0,95

Sound absorption class: A

Test no.: B190501
Date of test: 2023-02-06

Podpis: Piotr Jakubowski

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Signed by /
Podpisano przez:

Piotr Jakubowski

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2023-02-27
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