

Measurement of sound absorption in a reverberation chamber according to PN-EN ISO 354

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

2026-04-17

Client: Fluffo Sp. z o.o. ul. Poprzeczna 15A, 05-083 Wierzbina
Producer: Fluffo Sp. z o.o. ul. Poprzeczna 15A, 05-083 Wierzbina
Research laboratory: CTO S.A. Laboratory of Vibro-acoustic Testing, Environmental Laboratories Division
Sample no: LA2806
Sample description: 6 panels laid directly on the floor of the reverberation chamber. The side surface was not included in the sample surface.
Fluffo FabriFrame – a large-format acoustic wall panel in an aluminium frame, covered with decorative fabric with a weight of 330 g/m², filled with mineral wool with a density of 53 kg/m³. The whole is enclosed by a PET sheet with a density of 1500 g/m². Panel thickness: 60 mm.

Assembly type: A
Surface area of the sample: 11,55 m²
Objętość komory pogłosowej: 200,00 m³

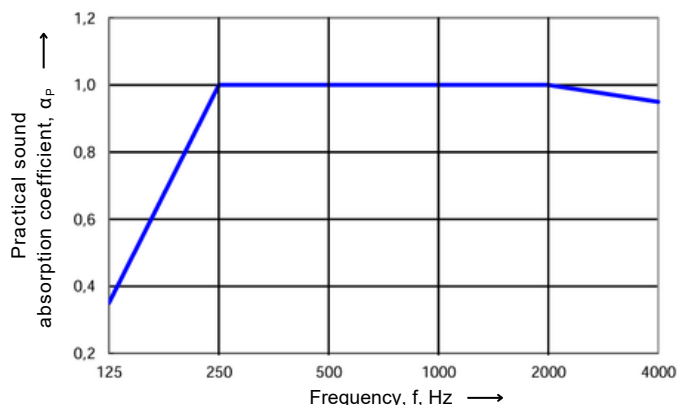
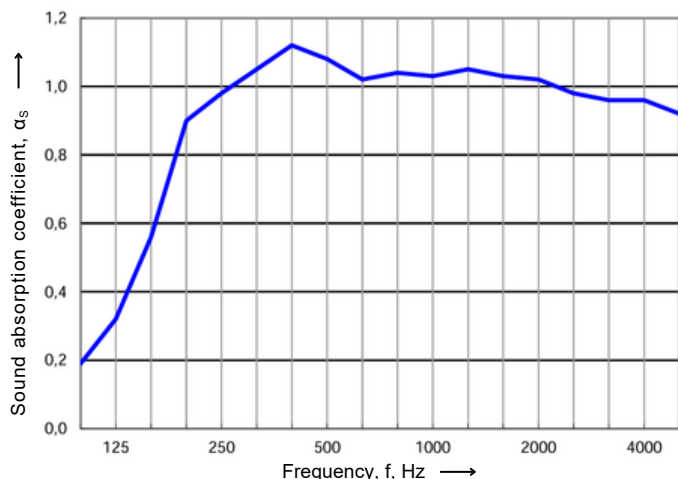
Environmental conditions:

Reverberation chamber with sample:		Empty reverberation chamber:	
Air temperature:	20,6°C	Air temperature:	21,3°C
Relative humidity:	32,5%	Relative humidity:	35,6%
Atmospheric pressure:	102,1 kPa	Atmospheric pressure:	102,5 kPa

f [Hz]	T_1 [s]	T_2 [s]	A_T [m ²]	α_s	α_p
100	7,2	4,9	2,2	0,19	0,35
125	7,7	4,1	3,7	0,32	
160	5,8	2,7	6,5	0,56	
200	5,5	2,0	10,4	0,90	1,00
250	5,4	1,9	11,3	0,98	
315	5,7	1,8	12,2	1,05	
400	5,2	1,7	13,0	1,12	1,00
500	5,0	1,7	12,4	1,08	
630	4,8	1,7	11,8	1,02	
800	4,7	1,7	12,0	1,04	1,00
1000	4,4	1,7	11,9	1,03	
1250	4,2	1,6	12,1	1,05	
1600	3,8	1,6	11,9	1,03	1,00
2000	3,4	1,5	11,8	1,02	
2500	3,1	1,4	11,3	0,98	
3150	2,5	1,3	11,1	0,96	0,95
4000	2,0	1,2	11,0	0,96	
5000	1,6	1,0	10,7	0,92	

Indications:

f - frequency, in one-third octave band [Hz]
 T_1 - reverberation time of 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 absorption area of the test sample [m²].



Sound absorption index and class according to EN ISO 11654

$\alpha_w = 1,00$

Sound absorption class: A

Test no: B280601
Test date: 2026-04-17

Signature: Adam Arentowicz