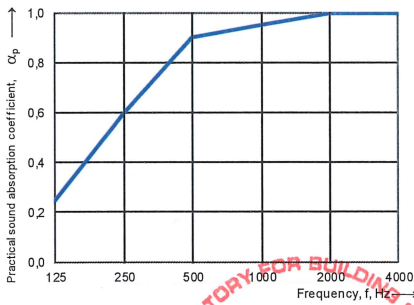


Protocol

Sound absorption coefficient according to ISO 11654																																							
Measurement of sound absorption coefficient in a reverberation room																																							
Client:	XAL GmbH, Auer-Welsbach-Gasse 36, AT-8055 Graz																																						
Date of test:	29.04.2025																																						
Description:	Productname: FRACTAL CODE acoustic wall panel Type: double layer, PET felt, glued fractal code 1, fractal code 2, fractal code 3																																						
Object:	Test in full accordance with EN ISO 354. Setup of the test specimen in full accordance with EN ISO 354, section 6.2.1. The setup consists of 3 acoustic panels (external dimensions each: 2950 x 1150 mm, L x W, thickness ~20 mm) laid flat over squared timber battens (5 battens, each: 2950 mm x 40 mm x 60 mm, L x W x H). Additionally, wooden slats placed crosswise on top of the battens (8 slats, each: 3450 mm x 50 mm x 20 mm, L x W x H). Element consisting of PET felt with rectangular cut-outs of varying dimensions in the top layer. Wall panel: FRACTAL CODE acoustic wall panel, fractal code 1 Wall panel: FRACTAL CODE acoustic wall panel, fractal code 2 Wall panel: FRACTAL CODE acoustic wall panel, fractal code 3 Circumferential wooden frame construction (OSB, thickness = 15 mm). The joint to the floor is sealed with linseed oil putty. • Test specimen area: 3450 mm x 2950 mm, L x W = 10,18 m² • Distance from the floor to the bottom edge of the test specimen: 80 mm • Construction height: thickness ~100 mm • Weight per element: fractal code 1: ~13,42 kg, (perforation ratio: 6,1%, according to manufacturer) • Weight per element: fractal code 2: ~13,30 kg, (perforation ratio: 6,0%, according to manufacturer) • Weight per element: fractal code 3: ~14,22 kg, (perforation ratio: 5,2%, according to manufacturer)																																						
Empty reverberation room:	Reverberation room with object																																						
Relative humidity:	50,9 %																																						
Temperature:	21,5 °C																																						
Barometric pressure:	98,5 kPa																																						
Relative humidity:	50,8 %																																						
Temperature:	21,8 °C																																						
Barometric pressure:	98,4 kPa																																						
Surface area:	10,18 m²																																						
Room volume:	244,3 m³																																						
Total room area S_T :	240,1 m²																																						
<table border="1"> <thead> <tr> <th>Frequency f [Hz]</th> <th>α_p 1/1 octave</th> </tr> </thead> <tbody> <tr><td>100</td><td></td></tr> <tr><td>125</td><td>0,25</td></tr> <tr><td>160</td><td></td></tr> <tr><td>200</td><td></td></tr> <tr><td>250</td><td>0,60</td></tr> <tr><td>315</td><td></td></tr> <tr><td>400</td><td></td></tr> <tr><td>500</td><td>0,90</td></tr> <tr><td>630</td><td></td></tr> <tr><td>800</td><td></td></tr> <tr><td>1000</td><td>0,95</td></tr> <tr><td>1250</td><td></td></tr> <tr><td>1600</td><td></td></tr> <tr><td>2000</td><td>1,00</td></tr> <tr><td>2500</td><td></td></tr> <tr><td>3150</td><td></td></tr> <tr><td>4000</td><td>1,00</td></tr> <tr><td>5000</td><td></td></tr> </tbody> </table>	Frequency f [Hz]	α_p 1/1 octave	100		125	0,25	160		200		250	0,60	315		400		500	0,90	630		800		1000	0,95	1250		1600		2000	1,00	2500		3150		4000	1,00	5000		
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Classification in full accordance with EN ISO 11654:1997 Acc. to table B.1 (Sound absorber classification), the specimen is classified as sound absorber class A.																																							
Weighted sound absorption coefficient according to ISO 11654 $\alpha_w = 0,90$ It is strongly recommended to use this single-number rating in combination with the complete sound absorption coefficient curve.																																							
Name of test institute:	Labor für Bauphysik																																						
No. of test report:	B25-044-A17007-355a_kaso																																						
Date:	29.04.2025																																						
Signature:	DI J. Kasim																																						