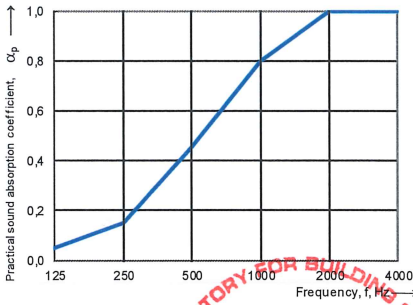


## Protocol

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 on the floor. 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 adhesive tape.  • Test specimen area: 3450 mm x 2950 mm, L x W = 10,18 m² • Construction height: thickness ~20 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:	50,3 %																										
Temperature:	21,7 °C																										
Barometric pressure:	98,5 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><math>\alpha_p</math> 1/1 octave</th> </tr> </thead> <tbody> <tr><td>100</td><td rowspan="3">0,05</td></tr> <tr><td>125</td></tr> <tr><td>160</td></tr> <tr><td>200</td><td rowspan="3">0,15</td></tr> <tr><td>250</td></tr> <tr><td>315</td></tr> <tr><td>400</td><td rowspan="3">0,45</td></tr> <tr><td>500</td></tr> <tr><td>630</td></tr> <tr><td>800</td><td rowspan="3">0,80</td></tr> <tr><td>1000</td></tr> <tr><td>1250</td></tr> <tr><td>1600</td><td rowspan="3">1,00</td></tr> <tr><td>2000</td></tr> <tr><td>2500</td></tr> <tr><td>3150</td><td rowspan="3">1,00</td></tr> <tr><td>4000</td></tr> <tr><td>5000</td></tr> </tbody> </table>	Frequency f [Hz]	$\alpha_p$ 1/1 octave	100	0,05	125	160	200	0,15	250	315	400	0,45	500	630	800	0,80	1000	1250	1600	1,00	2000	2500	3150	1,00	4000	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 D.																											
Weighted sound absorption coefficient according to ISO 11654 $\alpha_w = 0,45$ (MH) 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-A17005-355a_kaso																										
Date:	29.04.2025																										
Signature:	DI J. Kasim																										