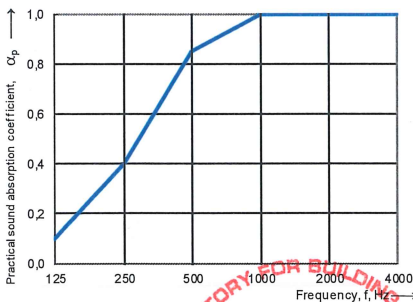


Protocol

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 PET felt battens (9 battens, each: 2950 mm x 50 mm x 25 mm, L x W x H, 3 battens per element). 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: 25 mm • Construction height: thickness ~45 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 %	Relative humidity:	50,8 %																										
Temperature:	21,5 °C	Temperature:	21,8 °C																										
Barometric pressure:	98,5 kPa	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>α_p 1/1 octave</th> </tr> </thead> <tbody> <tr><td>100</td><td rowspan="3">0,10</td></tr> <tr><td>125</td></tr> <tr><td>160</td></tr> <tr><td>200</td><td rowspan="3">0,40</td></tr> <tr><td>250</td></tr> <tr><td>315</td></tr> <tr><td>400</td><td rowspan="3">0,85</td></tr> <tr><td>500</td></tr> <tr><td>630</td></tr> <tr><td>800</td><td rowspan="3">1,00</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]	α_p 1/1 octave	100	0,10	125	160	200	0,40	250	315	400	0,85	500	630	800	1,00	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 C.																													
Weighted sound absorption coefficient according to ISO 11654 $\alpha_{w} = 0,70$ (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-A17006-355a_kaso																												
Date: 29.04.2025	Signature: DI J. Kasim																												