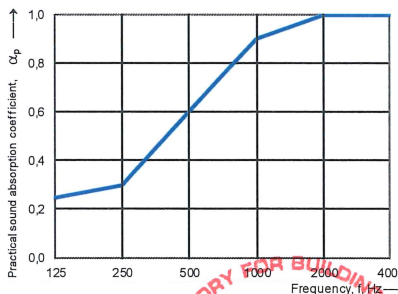


Protocol

| 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: | 10.06.2025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description: | Productname: SIVERA 25_200 distance 100 Type: single layer, PET felt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object: | <p>Test in full accordance with EN ISO 354. Setup of the test specimen in full accordance with EN ISO 354, section 6.2.13 as well as in accordance with Annex B, section B.2 (type A setup) and section B.7 (type J setup).</p> <p>The setup consists of a total of 34 baffles (external dimensions each: 2970 x 200 mm, L x W, thickness = 25 mm) as well as 3 mounting profiles. The distance between the floor and the mounting profiles (15 mm x 40 mm, W x H) is established using leveling feet (threaded rods with base plate). The baffles are attached to the profiles using mounting clips (3 clips per baffle). The profiles are aligned at a 90° angle to the baffles.</p> <p>Element made of PET felt, featuring longitudinal grooves on the end faces.</p> <p>Baffle: SIVERA 25_200 Mounting profile: mounting profile Mounting clips: mounting clip</p> <p>Circumferential wooden frame construction (MDF, thickness = 15 mm). The joint to the floor is sealed with linseed oil putty.</p> <ul style="list-style-type: none"> • Test specimen area: 3468 mm x 2970 mm, L x W = 10,30 m² • Surface area per baffle (including longitudinal end faces): 1,3365 m² (manufacturer data) • Total sound-absorbing surface area of all baffles (including longitudinal end faces): 45,4410 m² (manufacturer data) • Distance from floor to bottom edge of test specimen: 300 mm • Construction height: approx. 500 mm • Baffle spacing (center-to-center distance): 100 mm • Mounting profile spacing (center-to-center distance): 990 mm • Weight per baffle: approx. 2,44 kg (including mounting clips) • Weight per mounting profile: approx. 1,12 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Empty reverberation room: | Reverberation room with object | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative humidity: | 57,8 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature: | 22,0 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barometric pressure: | 98,3 kPa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 56,2 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22,3 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 97,8 kPa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Surface area: | 10,30 m² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Room volume: | 244,3 m³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total room area S_0 : | 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>0,30</td></tr> <tr><td>315</td><td></td></tr> <tr><td>400</td><td></td></tr> <tr><td>500</td><td>0,60</td></tr> <tr><td>630</td><td></td></tr> <tr><td>800</td><td></td></tr> <tr><td>1000</td><td>0,90</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 | 0,30 | 315 | | 400 | | 500 | 0,60 | 630 | | 800 | | 1000 | 0,90 | 1250 | | 1600 | | 2000 | 1,00 | 2500 | | 3150 | | 4000 | 1,00 | 5000 | |  |
| Frequency f [Hz] | α_p 1/1 octave | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125 | 0,25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 250 | 0,30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 315 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 500 | 0,60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 630 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1000 | 0,90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2000 | 1,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4000 | 1,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Classification according to 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 $\alpha_w = 0,60$ (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-A17010-355a_kaso | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date: | 10.06.2025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signature: | DI J. Kasim | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |