

## Sound absorption in a reverberation room according to PN-EN ISO 354:2005

Measurement of sound absorption coefficient

Client: **VANK Sp. z o.o.****Sarbinowska 11, 62-020 Łowęcin**Test specimen mounted by: **NA ITB**

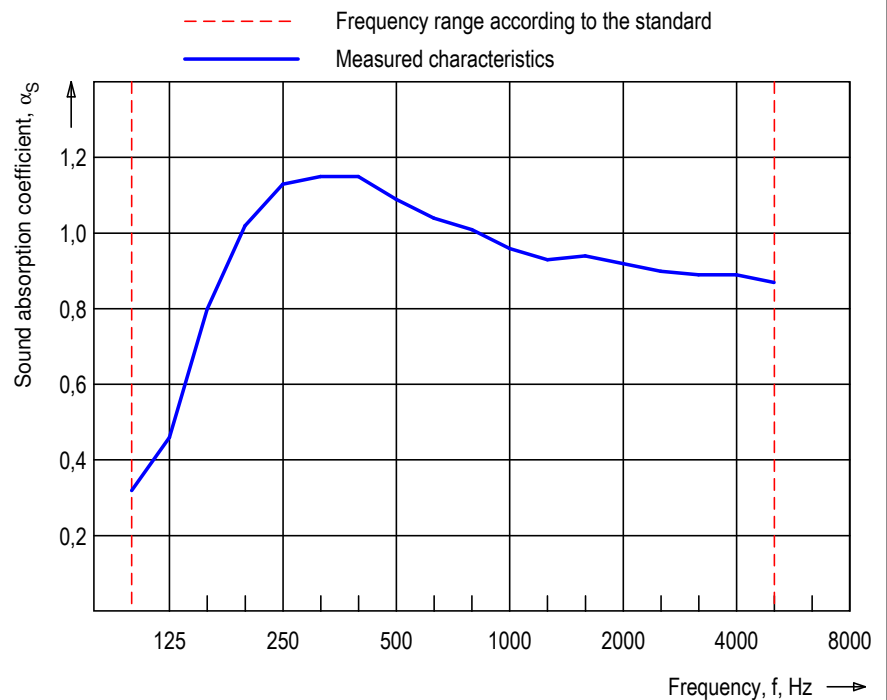
Description of the tested specimen:

**VANK WALL FLAT****sample no 1**

| Frequency<br>$f$<br>[Hz] | $T_1$<br>[s] | $T_2$<br>[s] | $\alpha_S$ | $\alpha_p$ |
|--------------------------|--------------|--------------|------------|------------|
| 100                      | 7,83         | 3,98         | 0,32       | 0,55       |
| 125                      | 7,77         | 3,29         | 0,46       |            |
| 160                      | 6,40         | 2,16         | 0,80       |            |
| 200                      | 6,26         | 1,82         | 1,02       | 1,00       |
| 250                      | 5,93         | 1,66         | 1,13       |            |
| 315                      | 6,71         | 1,70         | 1,15       |            |
| 400                      | 7,31         | 1,73         | 1,15       | 1,00       |
| 500                      | 7,73         | 1,83         | 1,09       |            |
| 630                      | 7,60         | 1,89         | 1,04       |            |
| 800                      | 7,17         | 1,90         | 1,01       | 0,95       |
| 1000                     | 7,26         | 1,98         | 0,96       |            |
| 1250                     | 7,25         | 2,02         | 0,93       |            |
| 1600                     | 6,64         | 1,96         | 0,94       | 0,90       |
| 2000                     | 5,77         | 1,90         | 0,92       |            |
| 2500                     | 4,92         | 1,83         | 0,90       |            |
| 3150                     | 3,96         | 1,69         | 0,89       | 0,90       |
| 4000                     | 3,08         | 1,50         | 0,89       |            |
| 5000                     | 2,26         | 1,29         | 0,87       |            |

PN-EN ISO 11654:1999

$$\alpha_W = 0,95(L)$$

Sound absorption class **A**Area of the tested specimen = **12,32** m<sup>2</sup>Temperature during measurements of  $T_1$  = **20,3** °C     $\Delta T = 0,0$  °CRelative humidity during measurements of  $T_1$  = **43,2** %     $\Delta \gamma = -1,2$  %Volume of the reverberation room = **200.0** m<sup>3</sup>Total surface area of the reverberation room = **203.0** m<sup>2</sup>Number of diffusers = **7**

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Thermal Physics, Acoustics and Environment L a b o r a t o r y

Test No.: **126.2021 / 0133.2021**Date of analysis: **2021-02-17**Signature: **Norbert Bombała**