

Measurement of sound absorption in reverberation rooms

**Contractor :**  
deBAKOM GmbH  
Bergstraße 36

**Client :**  
NoiCon Akustikdesign UG  
Bruchstr. 79

**Date:** 28.05.2018

**Inspection Date:** 24.05.2018

51519 Odenthal

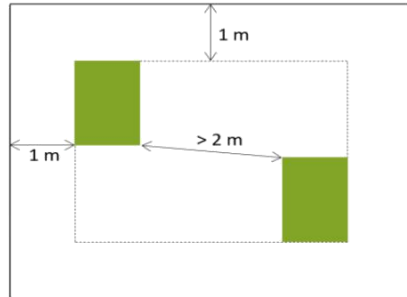
50259 Pulheim

**Report:** 2018050002-4\_S\_2553

**Description of Test Object & Type of Construction**

**Material:** Rockwool in a light metal casket  
**Dimensions (WxHxD):** 150 cm x 100 cm x 10 cm  
**Construction:** Type A according to Annex B without edge cover  
**Comment:** 2 pieces with holes (1.5 / 3RV)

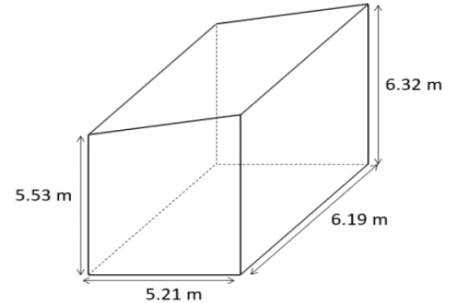
Location in the room:



**Description of the Reverberation Room**

**Volume:** 191 m<sup>3</sup>  
**No. of Diffusers:** 10 Nos.  
**Size Diffusers:** 150 cm x 105 cm  
**Microphone positions:** 6 Locations.  
**Sound Sources:** 2 Nos.

**Dimensions:**



**Measuring Technology**

**Gauge:** Nti Audio, XL2-TA (B)  
**Sound Source:** Norsonic dodecahedron Nor 276

**Meteorology**

**Temperature:** 22°C (T1) 22°C (T2)  
**Humidity:** 61 % (T1) 61 % (T2)

**Ergebnisse**

F	T <sub>1</sub>	T <sub>2</sub>	A <sub>obj</sub>	A <sub>obj,qm</sub>
[Hz]	[s]	[s]	[m <sup>2</sup> ]	[m <sup>2</sup> ]
100	10.5	6.6	0.9	0.6
125	11.6	6.8	0.9	0.6
160	9.8	5.1	1.4	1.0
200	6.8	3.7	1.9	1.2
250	6.0	3.2	2.2	1.5
315	5.4	3.0	2.3	1.6
400	5.4	2.8	2.7	1.8
500	5.2	2.8	2.6	1.7
630	6.1	2.9	2.8	1.8
800	6.3	3.1	2.6	1.7
1000	6.3	3.1	2.5	1.7
1250	5.9	3.0	2.4	1.6
1600	5.3	2.9	2.3	1.6
2000	4.9	2.8	2.4	1.6
2500	4.2	2.6	2.2	1.5
3150	3.6	2.4	2.2	1.5
4000	2.9	2.0	2.1	1.4
5000	2.4	1.8	2.0	1.3
6300	2.0	1.6	2.0	1.3
8000	1.5	1.2	2.1	1.4
10000	1.1	1.0	2.3	1.6

F Frequency  
T<sub>1</sub> Reverberation time of the empty reverberation room  
T<sub>2</sub> Reverberation time of the reverberation chamber after insertion of the test object  
A<sub>obj</sub> Equivalent sound absorption area per object  
A<sub>obj,qm</sub> Equivalent sound absorption area per 1m<sup>2</sup> (additional information)

