

Measurement of sound absorption in reverberation rooms

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**Date:** 28.05.2018  
**Inspection Date:** 24.05.2018  
**Report:** 2018050002-3\_S\_2553

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

Material: Synthetic fleece (NoiRed)  
Dimensions (WxDxH): 120 cm x 60 cm x 10 cm  
Construction: Type A according to Annex B without edge cover  
Comment: 3 Pieces without fabric cover

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 Location.  
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)

**Results**

F [Hz]	T <sub>1</sub> [s]	T <sub>2</sub> [s]	A <sub>obj</sub> [m <sup>2</sup> ]	A <sub>obj,qm</sub> [m <sup>2</sup> ]
100	10.5	7.6	0.4	0.5
125	11.6	8.1	0.4	0.5
160	9.8	6.0	0.7	0.9
200	6.8	4.1	1.0	1.4
250	6.0	3.4	1.3	1.9
315	5.4	3.0	1.5	2.1
400	5.4	2.8	1.8	2.5
500	5.2	2.8	1.8	2.4
630	6.1	3.1	1.7	2.3
800	6.3	3.2	1.6	2.2
1000	6.3	3.3	1.5	2.1
1250	5.9	3.3	1.4	1.9
1600	5.3	3.1	1.3	1.8
2000	4.9	3.0	1.3	1.8
2500	4.2	2.8	1.3	1.8
3150	3.6	2.5	1.2	1.7
4000	2.9	2.1	1.3	1.7
5000	2.4	1.9	1.2	1.6
6300	2.0	1.6	1.2	1.7
8000	1.5	1.2	1.3	1.8
10000	1.1	1.0	1.5	2.1

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)

