

Sound absorption according ISO 354 and ISO 11654

SA 1 20-000553-01

Measurement of sound absorption coefficient in a reverberation room

Annex SA – Sound absorption

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TFI sample number:	2000894	Testing period:	16.06.2020
Product designation:	Isle Sky	Installation:	16.06.2020
Installed by:	TFI Aachen GmbH		
Remarks:	Type G-200, tested with 20 cm distance parallel to the room surface. 150 % gather		

Construction:
(from top to bottom)

Reverberation room without sample:

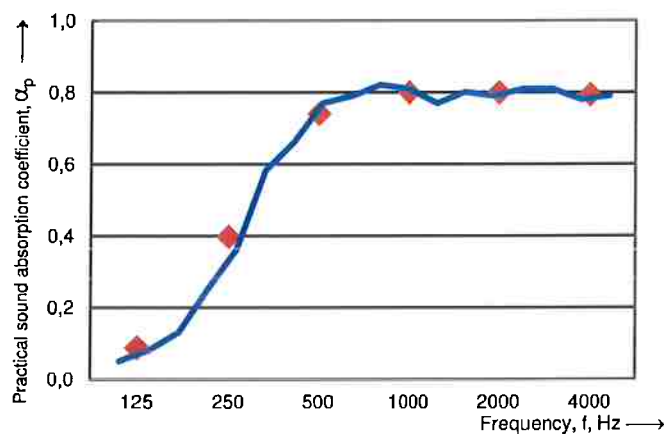
Relative humidity: 68,0 %
Temperature: 20,8 °C
Barometric pressure: 101,3 kPa

Reverberation room with sample:

Relative humidity: 67,3 %
Temperature: 20,8 °C
Barometric pressure: 101,2 kPa

Surface area: 10,80 m²
Room volume: 214,00 m³
Total room area S_r: 219,00 m²

Frequency f [Hz]	α_p Oktave
100	
125	0,09
160	
200	
250	0,40
315	
400	
500	0,74
630	
800	
1000	0,80
1250	
1600	
2000	0,80
2500	
3150	
4000	0,79
5000	



Weighted sound absorption coefficient according to ISO 11654

$$\alpha_w = 0,70$$



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$$\alpha_w = 0,70$$

Surface area: 10,80 m²

Room volume: 214,00 m³

Total room area S_t: 219,00 m²

Frequency [Hz]	α_p	α_s	T1 [s]	T2 [s]
50				
63				
80				
100		0,05	9,41	8,26
125	0,09	0,08	8,21	6,85
160		0,13	7,38	5,67
200		0,25	7,84	4,83
250	0,40	0,36	6,84	3,86
315		0,58	6,24	2,93
400		0,66	6,64	2,79
500	0,74	0,77	6,78	2,57
630		0,79	6,69	2,51
800		0,82	6,48	2,44
1000	0,80	0,81	6,33	2,43
1250		0,77	5,74	2,41
1600		0,80	5,41	2,30
2000	0,80	0,79	4,83	2,20
2500		0,81	4,10	2,01
3150		0,81	3,77	1,93
4000	0,79	0,78	3,29	1,82
5000		0,79	2,71	1,62

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Relative humidity: 68,0 %

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Relative humidity: 67,3 %

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