AKUSTIKVERKSTAN

PM 16-199-PM1
2016-09-26
1 page, 3 appendices

Akustikverkstan AB, Fabriksgatan 4, 531 30 Lidköping, tel +46 510 - 911 44, SWEDEN johan.jernstedt@akustikverkstan.se
Direct: +46 510 78 54 03

CALCULATED SOUND ABSORPTION FOR AKUSTIL AKUSOUND

The sound absorption for the wall absorber Akusound from Akustil has been measured and reported in Akustikverkstan Report 16-199-R1. The sound absorption areas for three different sized configurations of 50x50 absorbers have been calculated from the measurement of sound absorption coefficient.

The calculated N_{10}-value is presented in table 4 and the detailed results are presented in M6-M8.

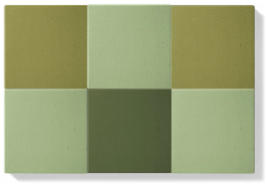
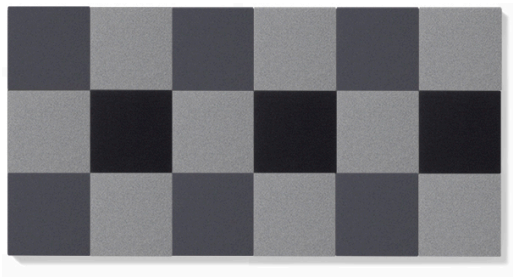
Image	Test object	Measurement protocol	N_{10}
	Akusound Small, 6 Akusound 50x50	M6	6.3
	Akusound Medium, 12 Akusound 50x50	M7	3.0
	Akusound Large, 18 Akusound 50x50	M8	2.0

Table 1: Calculated N_{10}-values for Akusound in three different configurations.

Johan Jernstedt
Master of Science, Civil engineering

Akusound Small, 6 pieces of Akusound 50x50 (150x100)

SOUND ABSORPTION AREA - INTERPOLATED FROM MEASUREMENTS

Interpolated sound absorption area from ISO 354 reverberation room measurements, evaluated according to SS 25269

Report number:
16-199-M6
Date
2016-09-15

Frequency f [Hz]	Sound absorption area [m^2 Sabine]	
50	0.06	
63	0.11	0.1
80	0.14	
100	0.26	
125	0.32	0.4
160	0.63	
200	0.85	
250	1.11	1.1
315	1.47	
400	1.75	
500	1.78	1.8
630	1.91	
800	1.83	
1000	1.80	1.8
1250	1.74	
1600	1.65	
2000	1.64	1.6
2500	1.59	
3150	1.60	
4000	1.72	1.7
5000	1.72	

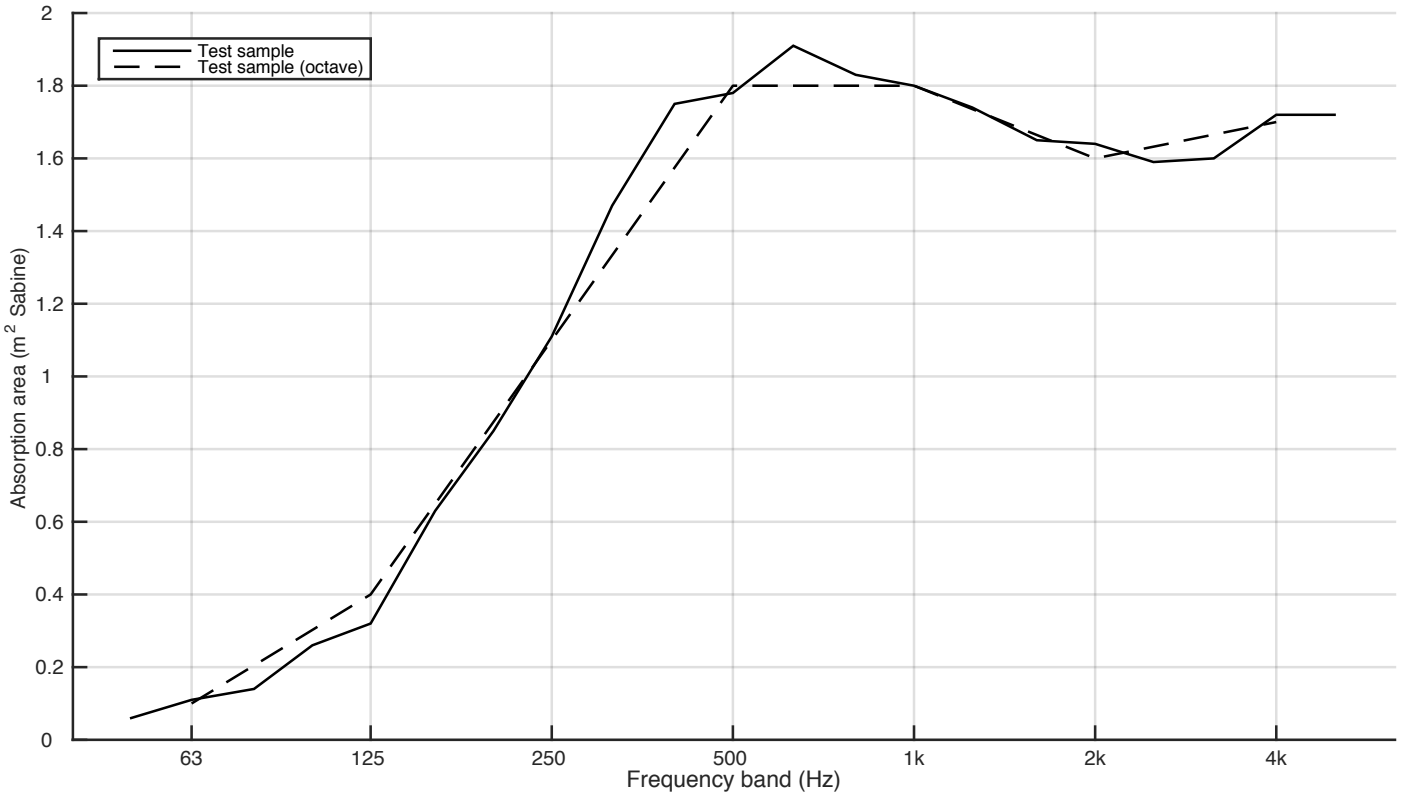
$N_{10} = 6.3$

Client: Akustil

Manufacturer: Akustil

Product identification: Akusound

Description of test specimen: Sound absorption area of 6 Akusound 50x50 wall absorbers, total area 150 x 100 cm, thickness 6 cm. Values are calculated from Akusound absorption coefficient measurements (16-199-M1). The scale deviates from ISO 354 to increase readability.



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Akusound Medium, 12 pieces of Akusound 50x50 (200x150)

SOUND ABSORPTION AREA - INTERPOLATED FROM MEASUREMENTS

Interpolated sound absorption area from ISO 354 reverberation room measurements, evaluated according to SS 25269

Report number:
16-199-M7
Date
2016-09-15

Frequency f [Hz]	Sound absorption area [m^2 Sabine]	
50	0.12	
63	0.21	0.2
80	0.27	
100	0.51	
125	0.63	0.8
160	1.26	
200	1.71	
250	2.22	2.3
315	2.94	
400	3.51	
500	3.57	3.6
630	3.81	
800	3.66	
1000	3.60	3.6
1250	3.48	
1600	3.30	
2000	3.27	3.3
2500	3.18	
3150	3.21	
4000	3.45	3.4
5000	3.45	

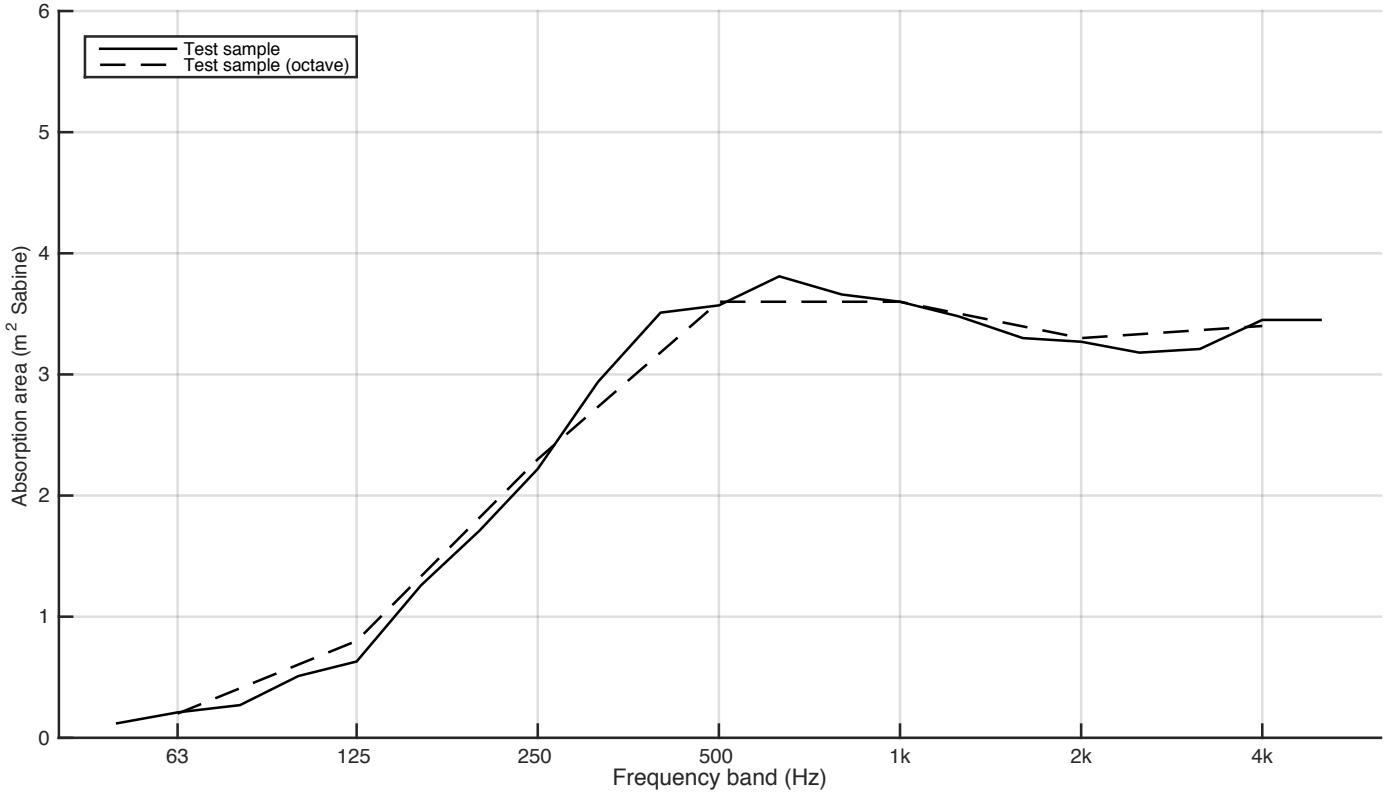
$N_{10} = 3$

Client: Akustil

Manufacturer: Akustil

Product identification: Akusound

Description of test specimen: Sound absorption area of 12 Akusound 50x50 wall absorbers, total area 200 x 150 cm, thickness 6 cm. Values are calculated from Akusound absorption coefficient measurements (16-199-M1).



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Akusound Large, 18 pieces of Akusound 50x50 (300x150)

SOUND ABSORPTION AREA - INTERPOLATED FROM MEASUREMENTS

Interpolated sound absorption area from ISO 354 reverberation room measurements, evaluated according to SS 25269

Report number:
16-199-M8
Date
2016-09-15

Frequency f [Hz]	Sound absorption area [m^2 Sabine]	
50	0.18	
63	0.32	0.3
80	0.40	
100	0.77	
125	0.94	1.2
160	1.89	
200	2.56	
250	3.33	3.4
315	4.41	
400	5.26	
500	5.35	5.4
630	5.71	
800	5.49	
1000	5.40	5.4
1250	5.22	
1600	4.95	
2000	4.91	4.9
2500	4.77	
3150	4.82	
4000	5.17	5.1
5000	5.17	

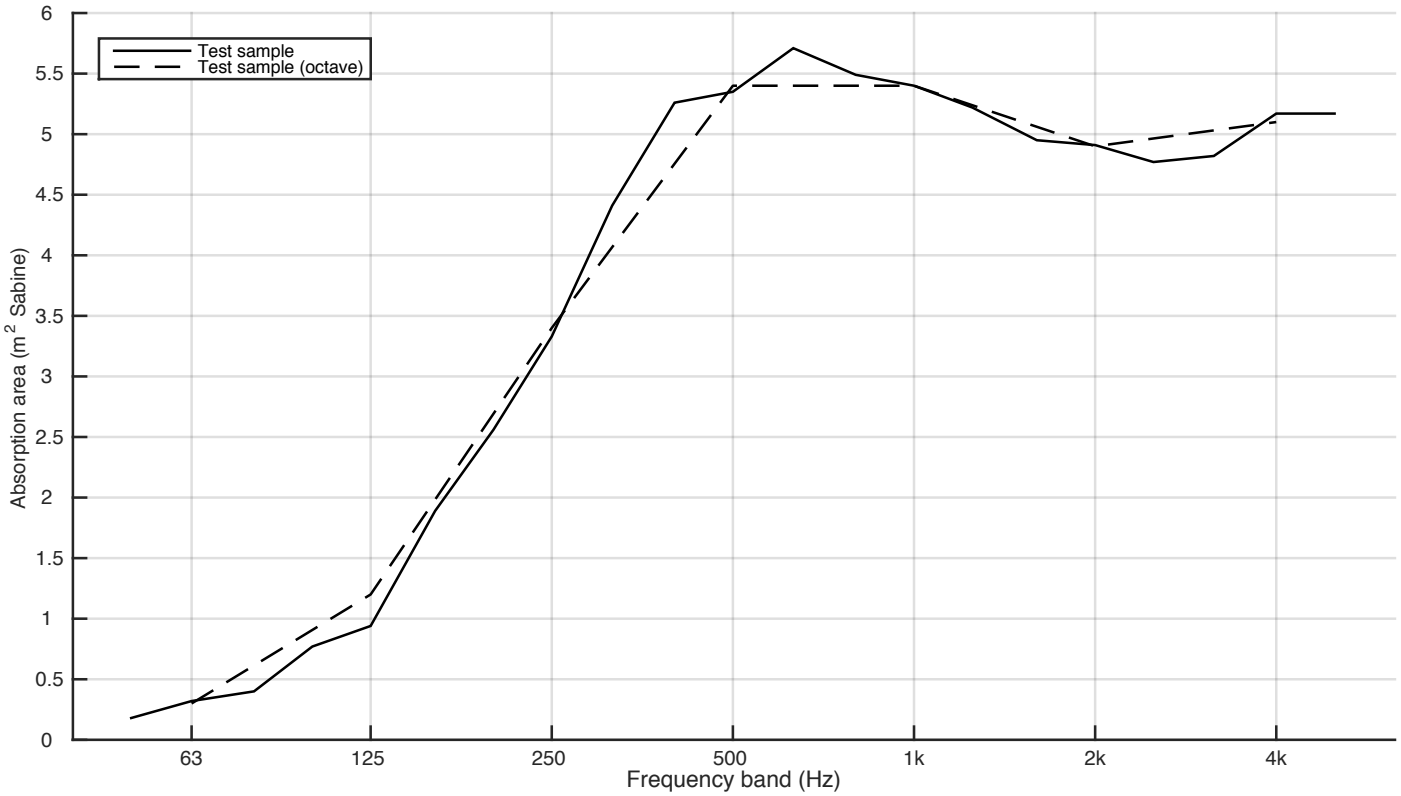
$N_{10} = 2$

Client: Akustil

Manufacturer: Akustil

Product identification: Akusound

Description of test specimen: Sound absorption area of 18 Akusound 50x50 wall absorbers, total area 300 x 150 cm, thickness 6 cm. Values are calculated from Akusound absorption coefficient measurements (16-199-M1).



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