

Swell

SOUND ABSORPTION COEFFICIENT ACCORDING TO ISO 354 AND ISO 11654

Measurement of sound absorption coefficient in a reverberation room



Report number:
14-41-M14
Date
2014-04-01

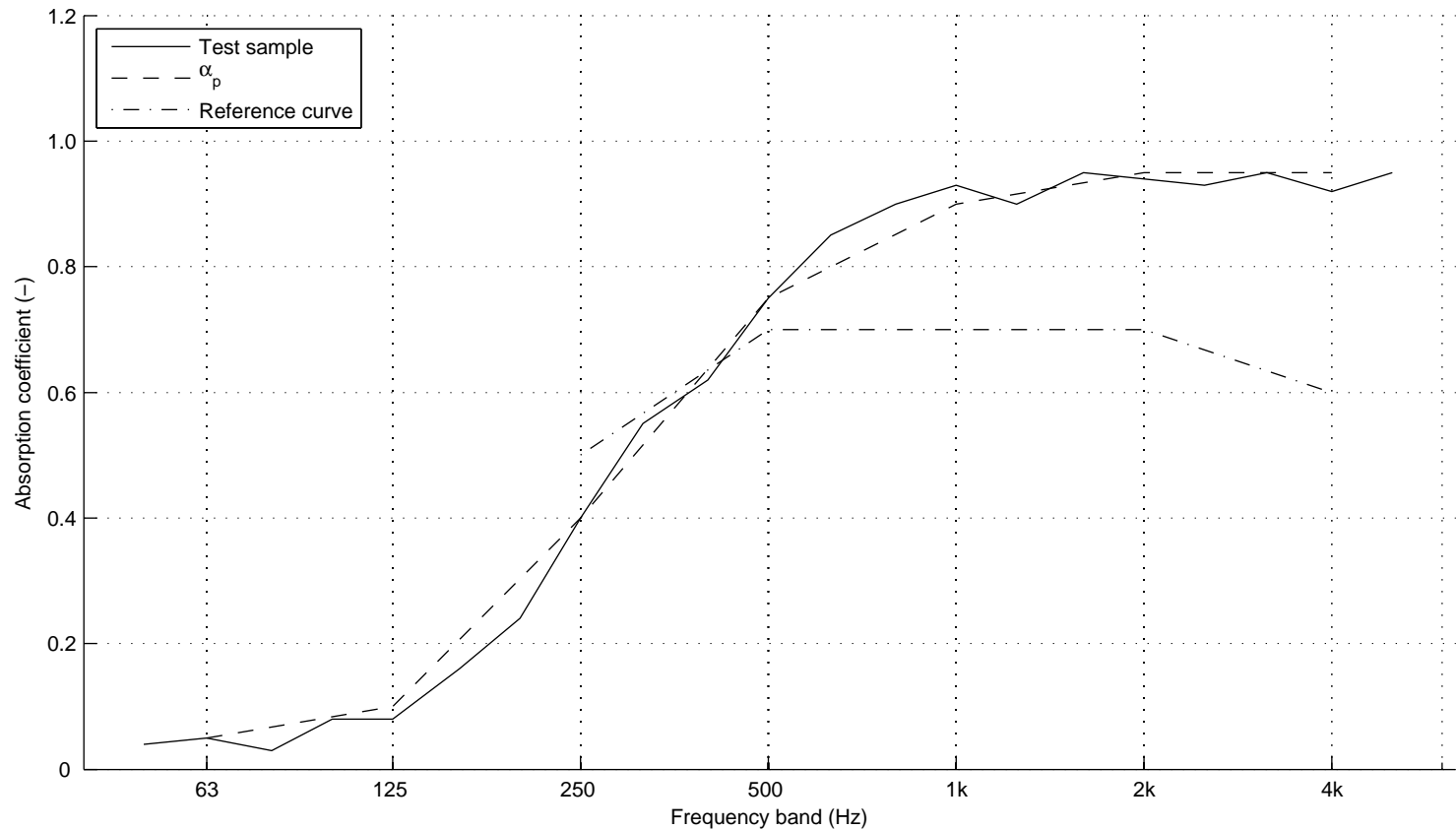
Frequency f [Hz]	Sound absorption coefficient	
	α_s	α_p
50	0.04	
63	0.05	0.05
80	0.03	
100	0.08	
125	0.08	0.10
160	0.16	
200	0.24	
250	0.40	0.40
315	0.55	
400	0.62	
500	0.75	0.75
630	0.85	
800	0.90	
1000	0.93	0.90
1250	0.90	
1600	0.95	
2000	0.94	0.95
2500	0.93	
3150	0.95	
4000	0.92	0.95
5000	0.95	

Client: Effect
 Manufacturer: Effect
 Product identification: Swell

Description of test specimen: Swell utan fyllning, 30 paneler direkt på golv, typ A-montage.

Reverberation room volume: 200 m³
 Temperature: 16 °C (empty: 14 °C)
 Air humidity: 77.5% (empty: 74.6%)
 Air pressure: 101.3 kPa (empty: 101.3 kPa)
 Size of specimen: 10.31 m²

Measurement date: 2013-06-20
 Measured by: Pontus Thorsson



$\alpha_w = 0.70(H)$

Absorption class = C

Swell + basfill

SOUND ABSORPTION COEFFICIENT ACCORDING TO ISO 354 AND ISO 11654

Measurement of sound absorption coefficient in a reverberation room



Report number:
14-41-M13
Date
2014-04-01

Frequency f [Hz]	Sound absorption coefficient	
	α_s	α_p
50	0.05	
63	0.06	0.05
80	0.04	
100	0.10	
125	0.12	0.15
160	0.27	
200	0.42	
250	0.62	0.60
315	0.82	
400	0.92	
500	1.03	1.00
630	1.07	
800	1.03	
1000	1.03	1.00
1250	1.00	
1600	0.98	
2000	0.94	0.95
2500	0.93	
3150	0.94	
4000	0.93	0.95
5000	0.99	

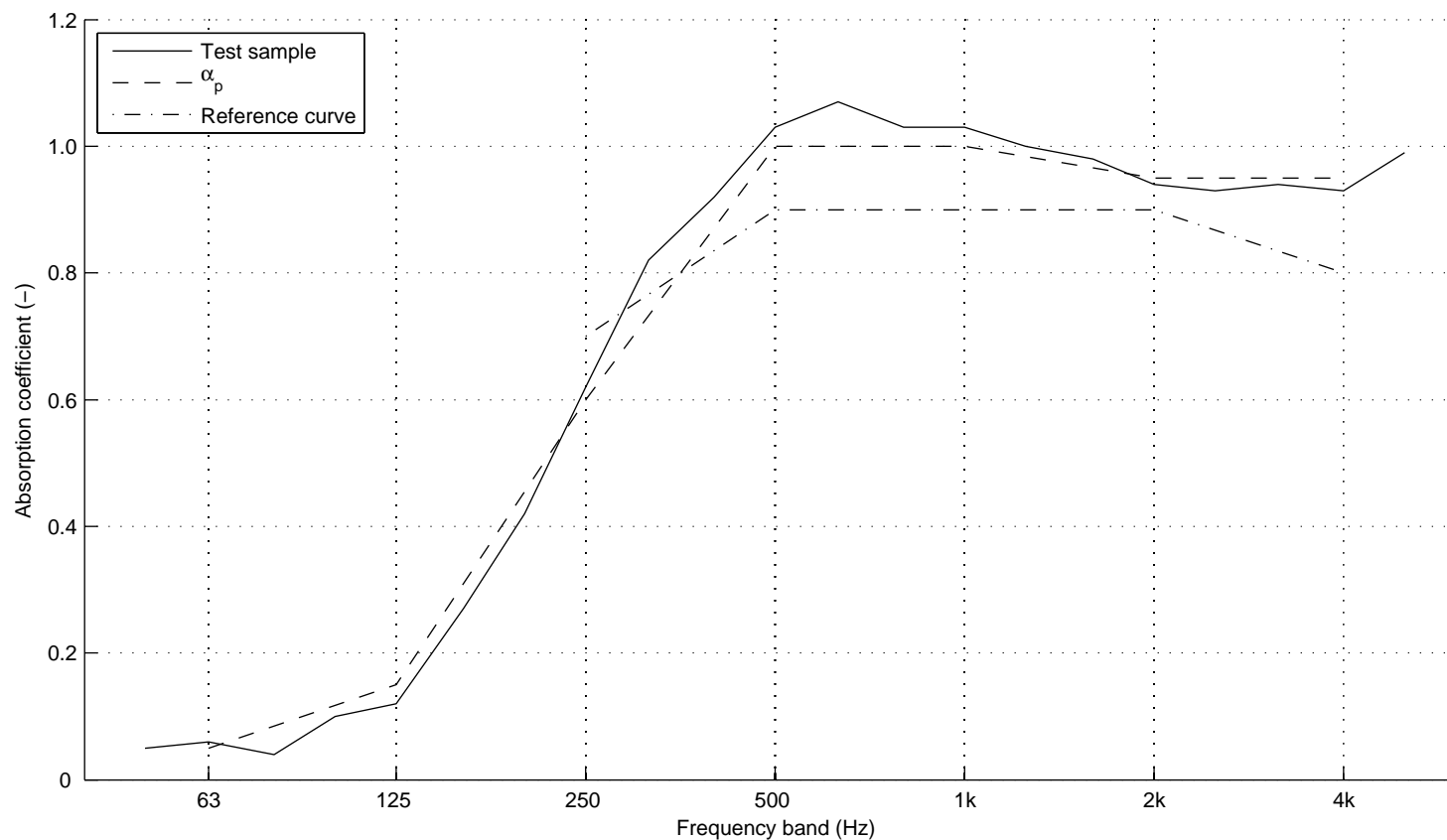
Client: Effect
 Manufacturer: Effect
 Product identification: Swell + basfill

Description of test specimen: Swell med fyllning, 30 paneler direkt på golv, typ A-montage.

Reverberation room volume: 200 m³
 Temperature: 15 °C (empty: 14 °C)
 Air humidity: 77.2% (empty: 74.6%)
 Air pressure: 101.3 kPa (empty: 101.3 kPa)
 Size of specimen: 10.31 m²

Measurement date: 2013-06-20

Measured by: Pontus Thorsson



$\alpha_w = 0.90$

Absorption class = A

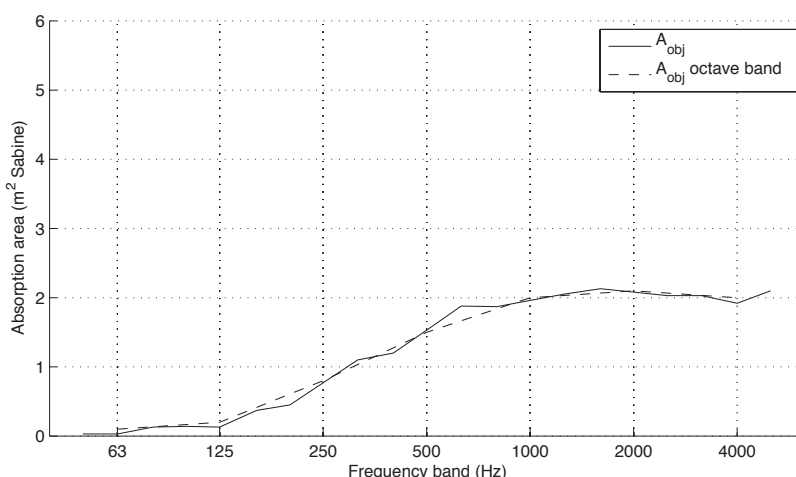
SOUND ABSORPTION AREA FOR OBJECT

Measured and evaluated according to SS-EN ISO 354 and SS 25269 (proposal)

CLIENT: Offecct AB

OBJECT: Soundwave Swell, 1 group consisting of 3 x 2 panels (each panel is 585 x 585 x 76 mm), (2 groups were measured, total area tested 4.10 m²)

1/3 octave band (Hz)	Equivalent sound absorption area / unit (m ² Sabine)	
	1/3 octave band	Octave band
50	0.03	
63	0.03	0.1
80	0.13	
100	0.14	
125	0.13	0.2
160	0.37	
200	0.45	
250	0.77	0.8
315	1.10	
400	1.20	
500	1.53	1.5
630	1.88	
800	1.87	
1000	1.96	2.0
1250	2.05	
1600	2.13	
2000	2.08	2.1
2500	2.03	
3150	2.03	
4000	1.92	2.0
5000	2.10	



CONDITIONS

Date of test: 2013-06-20
Date: 2013-09-03

Object area: 4.10 m²
Reverberation room volume: 200 m³

Relative humidity: 78%
Temperature: 15°C

Test report: 13-99-R1 (Akustikverkstan Sweden)
Signature: Pontus Thorsson

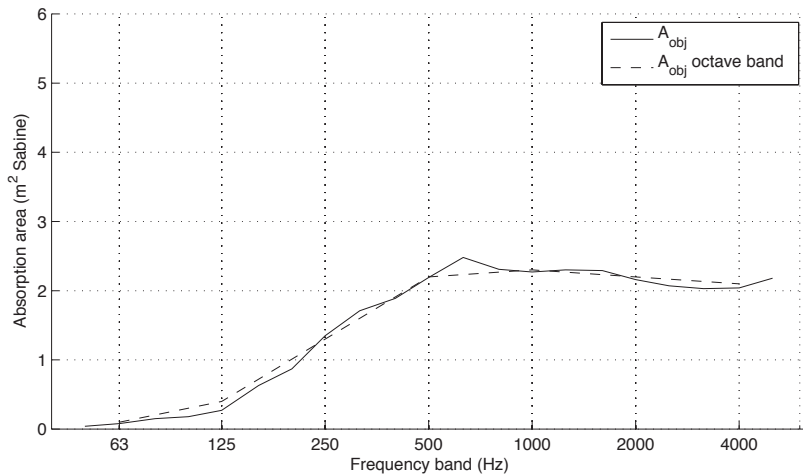
SOUND ABSORPTION AREA FOR OBJECT

Measured and evaluated according to SS-EN ISO 354 and SS 25269 (proposal)

CLIENT: Offecct AB

OBJECT: Soundwave Swell with Basfill, 1 group consisting of 3 x 2 panels (each panel is 585 x 585 x 76 mm), (2 groups were measured, total area tested 4.10 m²)

1/3 octave band (Hz)	Equivalent sound absorption area / unit (m ² Sabine)	
	1/3 octave band	Octave band
50	0.05	
63	0.08	0.1
80	0.15	
100	0.18	
125	0.27	0.4
160	0.63	
200	0.87	
250	1.35	1.3
315	1.71	
400	1.89	
500	2.19	2.2
630	2.48	
800	2.31	
1000	2.27	2.3
1250	2.30	
1600	2.29	
2000	2.16	2.2
2500	2.07	
3150	2.03	
4000	2.04	2.1
5000	2.18	



CONDITIONS

Date of test: 2013-06-20
Date: 2013-09-03

Object area: 4.10 m²
Reverberation room volume: 200 m³

Relative humidity: 77%
Temperature: 15°C

Test report: 13-99-R1 (Akustikverkstan Sweden)
Signature: Pontus Thorsson