

# Bella

SOUND ABSORPTION COEFFICIENT ACCORDING TO ISO 354 AND ISO 11654

Measurement of sound absorption coefficient in a reverberation room



Report number:

14-41-M8

Date

2014-04-01

Frequency f [Hz]	Sound absorption coefficient	
	$\alpha_s$	$\alpha_p$
50	0.01	
63	0.05	0.00
80	0.01	
100	0.07	
125	0.08	0.10
160	0.16	
200	0.21	
250	0.37	0.35
315	0.50	
400	0.57	
500	0.65	0.65
630	0.73	
800	0.76	
1000	0.77	0.80
1250	0.82	
1600	0.83	
2000	0.85	0.85
2500	0.86	
3150	0.84	
4000	0.81	0.85
5000	0.85	

Client: Offect

Manufacturer: Offect

Product identification: Bella

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

Reverberation room volume: 200 m<sup>3</sup>

Temperature: 16 °C (empty: 14 °C)

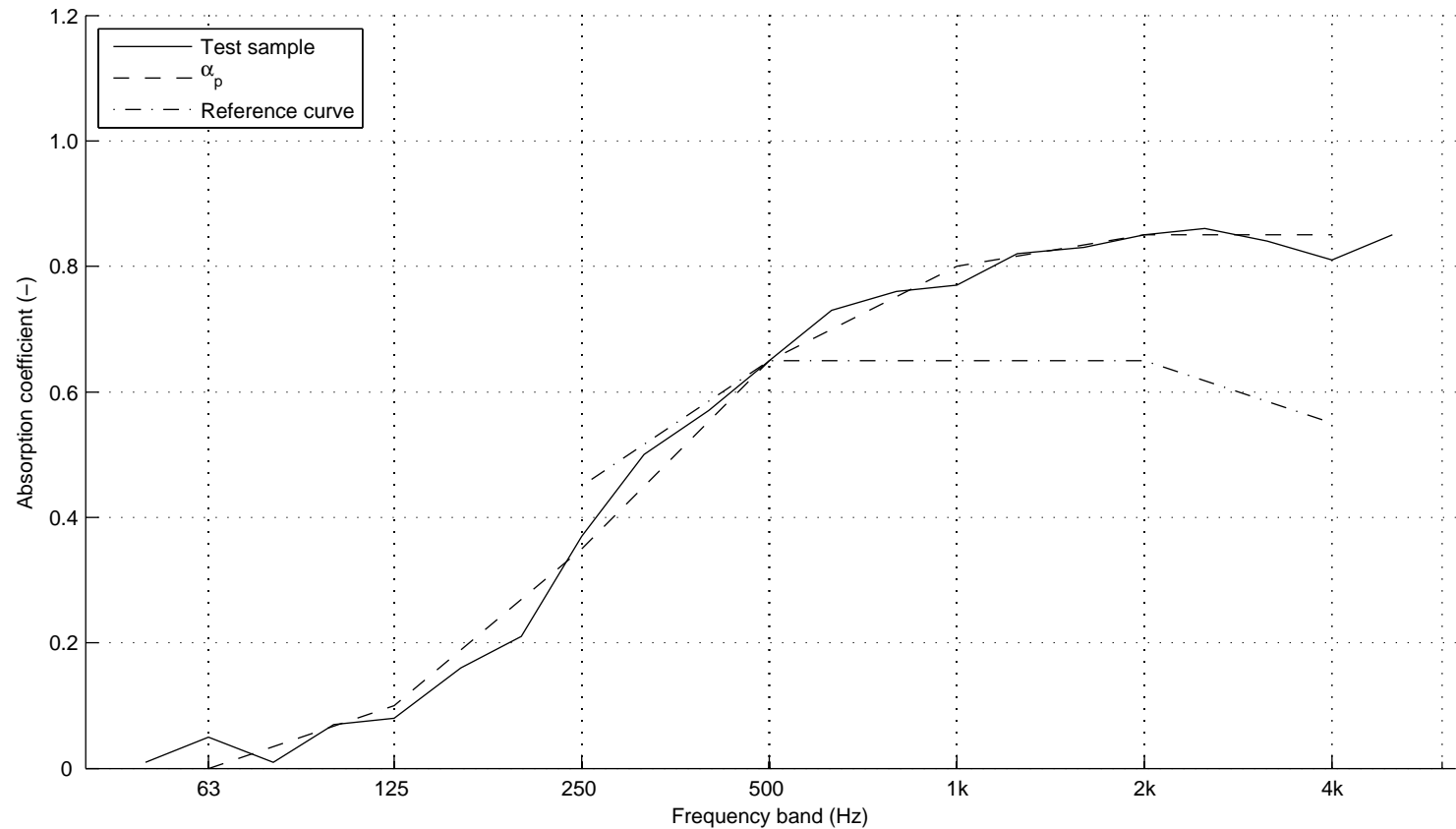
Air humidity: 80.6% (empty: 74.6%)

Air pressure: 101.3 kPa (empty: 101.3 kPa)

Size of specimen: 10.31 m<sup>2</sup>

Measurement date: 2013-06-20

Measured by: Pontus Thorsson



$\alpha_w = 0.65(H)$

Absorption class = C

# Bella + basfill

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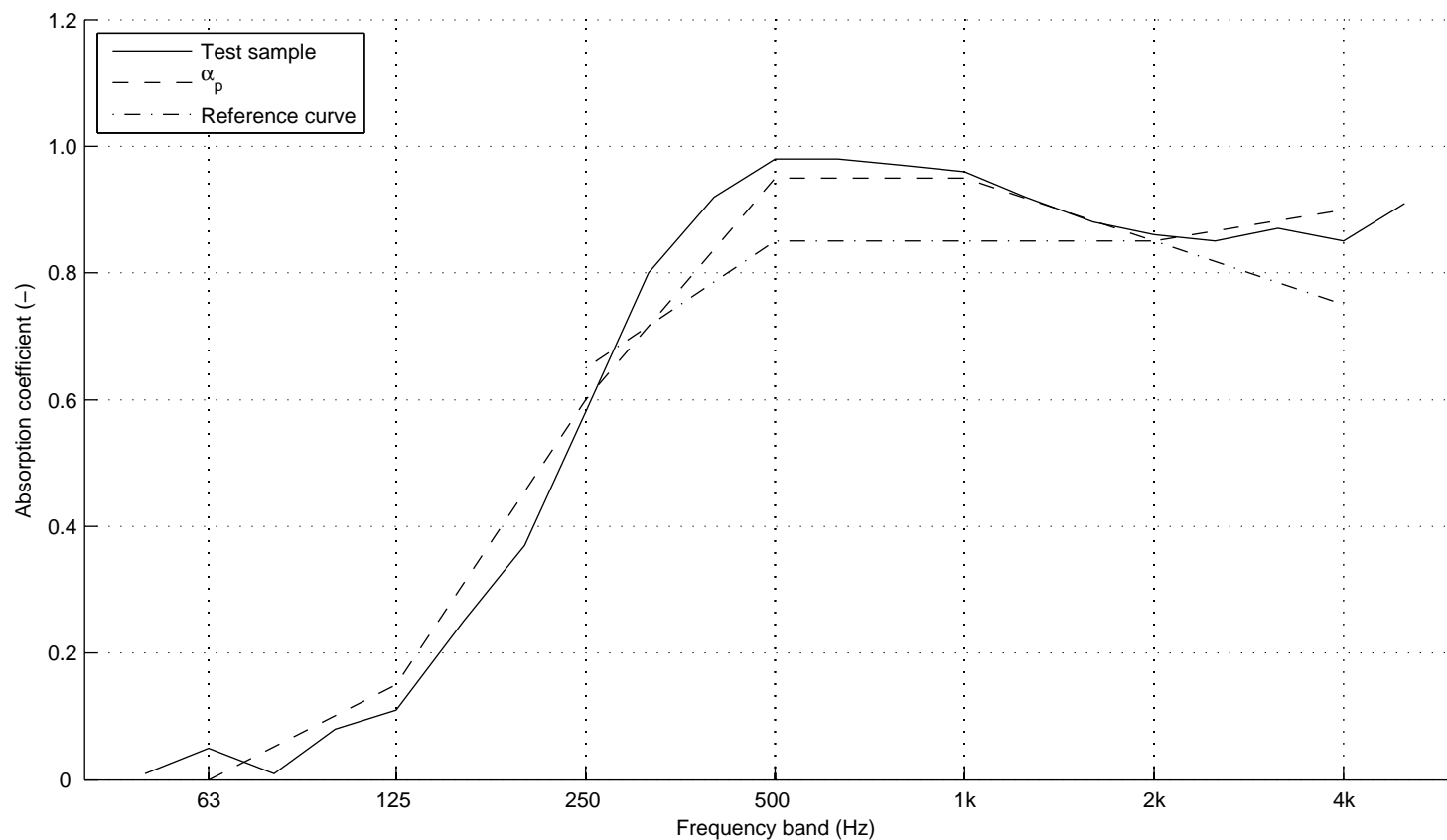
Report number:  
14-41-M7  
Date  
2014-04-01

Frequency f [Hz]	Sound absorption coefficient	
	$\alpha_s$	$\alpha_p$
50	0.01	
63	0.05	0.00
80	0.01	
100	0.08	
125	0.11	0.15
160	0.25	
200	0.37	
250	0.58	0.60
315	0.80	
400	0.92	
500	0.98	0.95
630	0.98	
800	0.97	
1000	0.96	0.95
1250	0.92	
1600	0.88	
2000	0.86	0.85
2500	0.85	
3150	0.87	
4000	0.85	0.90
5000	0.91	

Client: Effect  
 Manufacturer: Effect  
 Product identification: Bella+basfill  
 Description of test specimen: Bella med fyllning, 30 paneler direkt på golv, typ A-montage.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 16 °C (empty: 14 °C)  
 Air humidity: 80.5% (empty: 74.6%)  
 Air pressure: 101.3 kPa (empty: 101.3 kPa)  
 Size of specimen: 10.31 m<sup>2</sup>

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



$\alpha_w = 0.85$

Absorption class = B

# Bella med fyllning (2x3)

SOUND ABSORPTION AREA ACCORDING TO ISO 354

Measurement of sound absorption area in a reverberation room



Report number:  
14-41-M20  
Date  
2014-06-04

Frequency f [Hz]	Sound absorption area [m <sup>2</sup> Sabine]	
50	0.00	
63	0.06	0.0
80	0.03	
100	0.11	
125	0.20	0.3
160	0.55	
200	0.75	
250	1.18	1.2
315	1.62	
400	1.80	
500	2.07	2.0
630	2.27	
800	2.12	
1000	2.09	2.1
1250	2.04	
1600	2.08	
2000	2.06	2.0
2500	1.99	
3150	1.95	
4000	1.98	2.0
5000	2.08	

Client: Effect  
 Manufacturer: Effect  
 Product identification: Soundwave Bella med fyllning

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 15.7 °C (empty: 15.2 °C)  
 Air humidity: 80 % (empty: 77 %)  
 Air pressure: 101.3 kPa (empty: 101.3 kPa)  
 Number of specimens: 2

Description of test specimen: Soundwave Bella med fyllning placerad på golvet.  
 Ljudabsorptionsarea för grupp av objekt (2x3).

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

