

# Soundwave Ceramic Acoustic panel, set of 3x2 panels

SOUND ABSORPTION AREA ACCORDING TO ISO 354 AND SS 25269

Measurement of sound absorption area in a reverberation room



Report number:  
**17-159-M7**  
Date  
**2017-06-07**

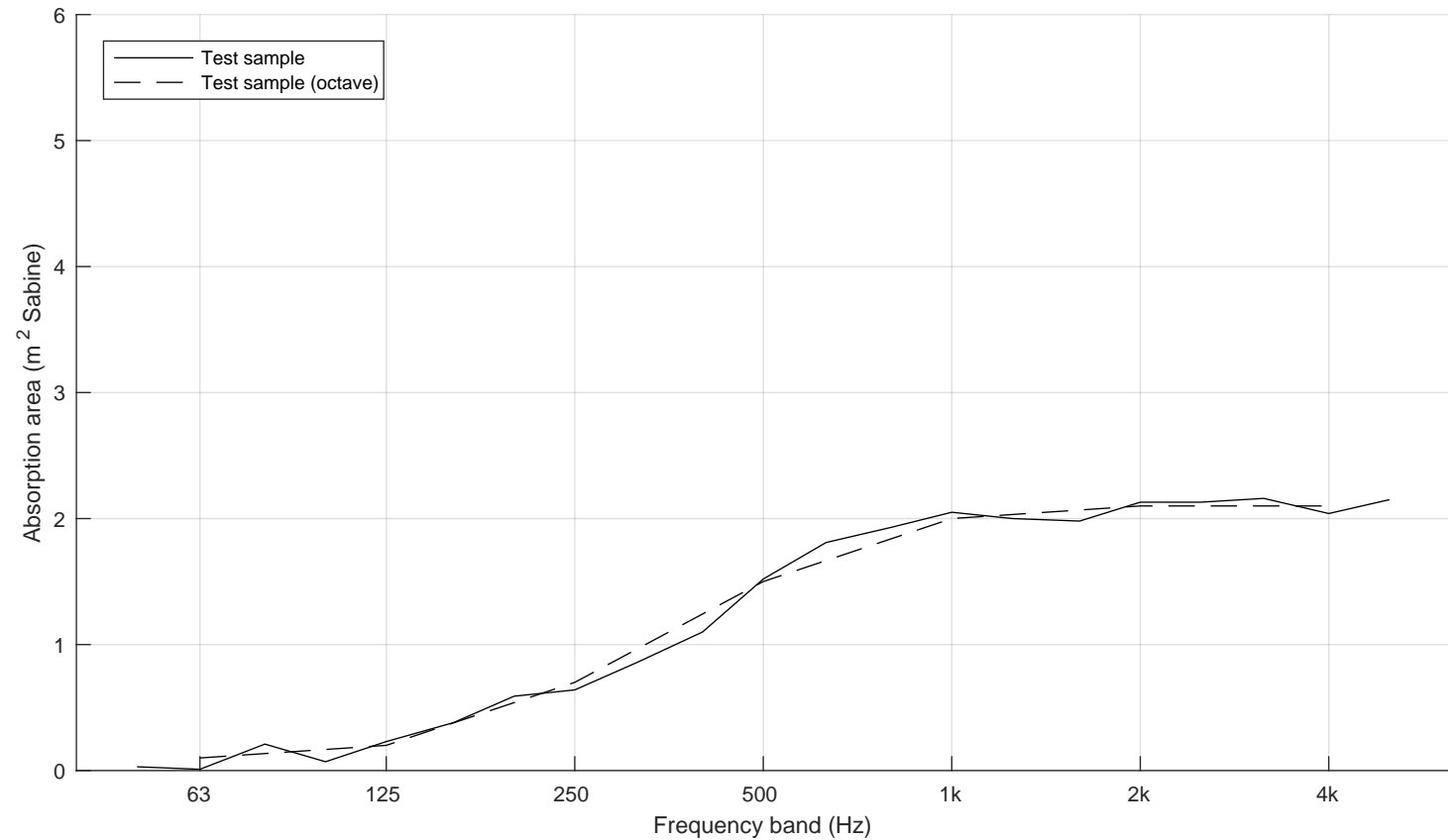
Frequency f [Hz]	Sound absorption area [m <sup>2</sup> Sabine]	
50	0.03	
63	0.01	0.1
80	0.21	
100	0.07	
125	0.23	0.2
160	0.38	
200	0.59	
250	0.64	0.7
315	0.86	
400	1.10	
500	1.52	1.5
630	1.81	
800	1.93	
1000	2.05	2.0
1250	2.00	
1600	1.98	
2000	2.13	2.1
2500	2.13	
3150	2.16	
4000	2.04	2.1
5000	2.15	

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic

Description of test specimen: Absorber of moulded polyester fibre.  
 Set of 3x2 panels, total object size: 1755 x 1170 x 60 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.7 °C (empty: 19.0 °C)  
 Air humidity: 64 % (empty: 57 %)  
 Air pressure: 98.9 kPa (empty: 98.8 kPa)  
 Number of specimens: 2

Measurement date: 2017-05-29  
 Measured by: Carl Nyqvist



$N_{10} = 6.7$

# Soundwave Ceramic Acoustic panel

SOUND ABSORPTION COEFFICIENT ACCORDING TO ISO 354 AND ISO 11654

Measurement of sound absorption coefficient in a reverberation room



Report number:  
**17-159-M9**  
Date  
**2017-06-07**

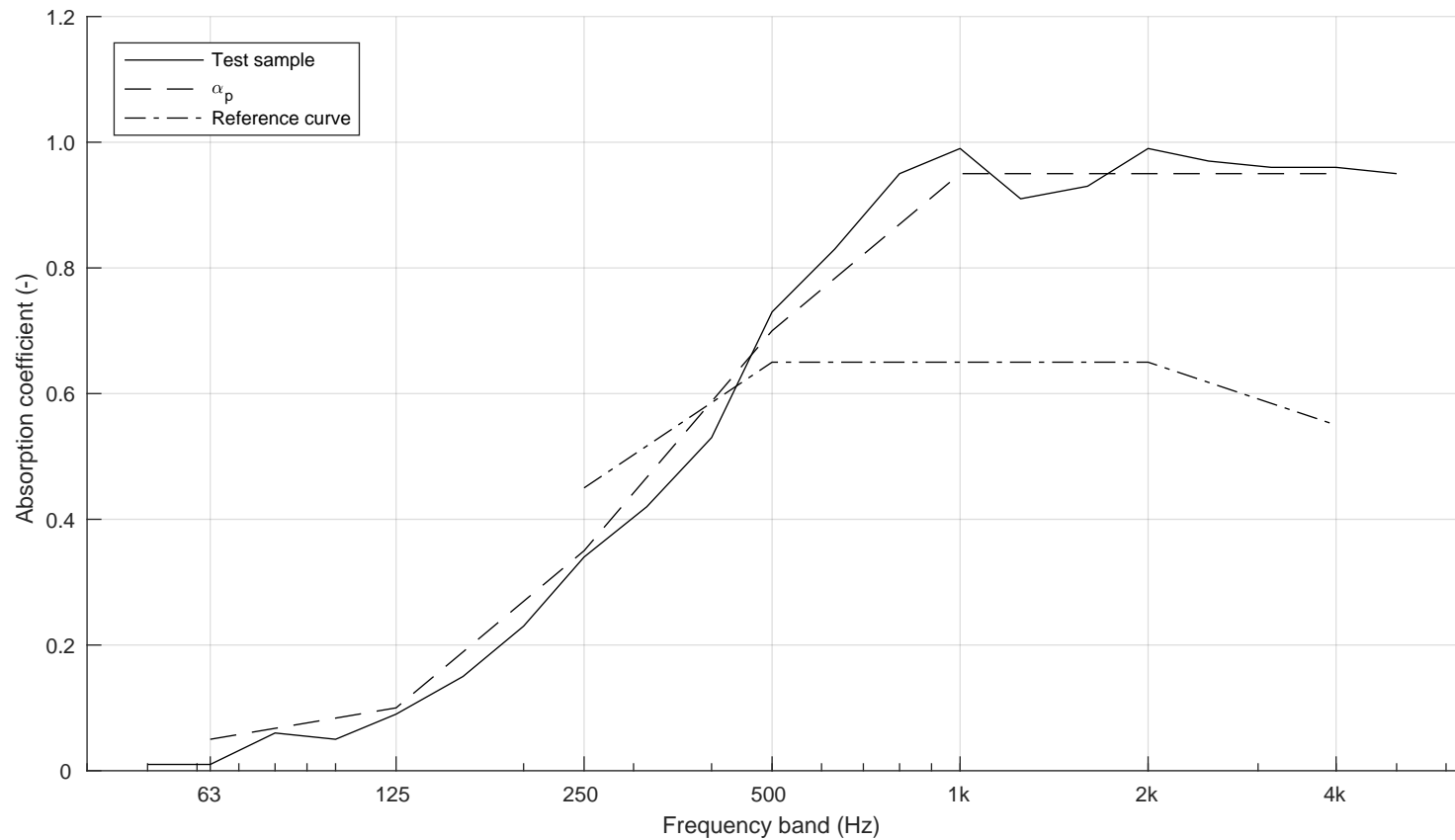
Frequency f [Hz]	Sound absorption coefficient	
	$\alpha_s$	$\alpha_p$
50	0.01	
63	0.01	0.05
80	0.06	
100	0.05	
125	0.09	0.10
160	0.15	
200	0.23	
250	0.34	0.35
315	0.42	
400	0.53	
500	0.73	0.70
630	0.83	
800	0.95	
1000	0.99	0.95
1250	0.91	
1600	0.93	
2000	0.99	0.95
2500	0.97	
3150	0.96	
4000	0.96	0.95
5000	0.95	

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic

Description of test specimen: Absorber of moulded polyester fibre.  
 6x5 panels, each panel size: 585 x 585 x 60 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.7 °C (empty: 19.0 °C)  
 Air humidity: 64 % (empty: 57 %)  
 Air pressure: 98.9 kPa (empty: 98.8 kPa)  
 Size of specimen: 10.3 m<sup>2</sup>

Measurement date: 2017-05-29  
 Measured by: Carl Nyqvist



$\alpha_w = 0.65(\text{MH})$

Absorption class = C

# Soundwave Ceramic Acoustic panel

SOUND ABSORPTION COEFFICIENT PER ASTM C423-09A

Measurement of sound absorption coefficient by the reverberation room method

Report number:

17-159-M16

Date

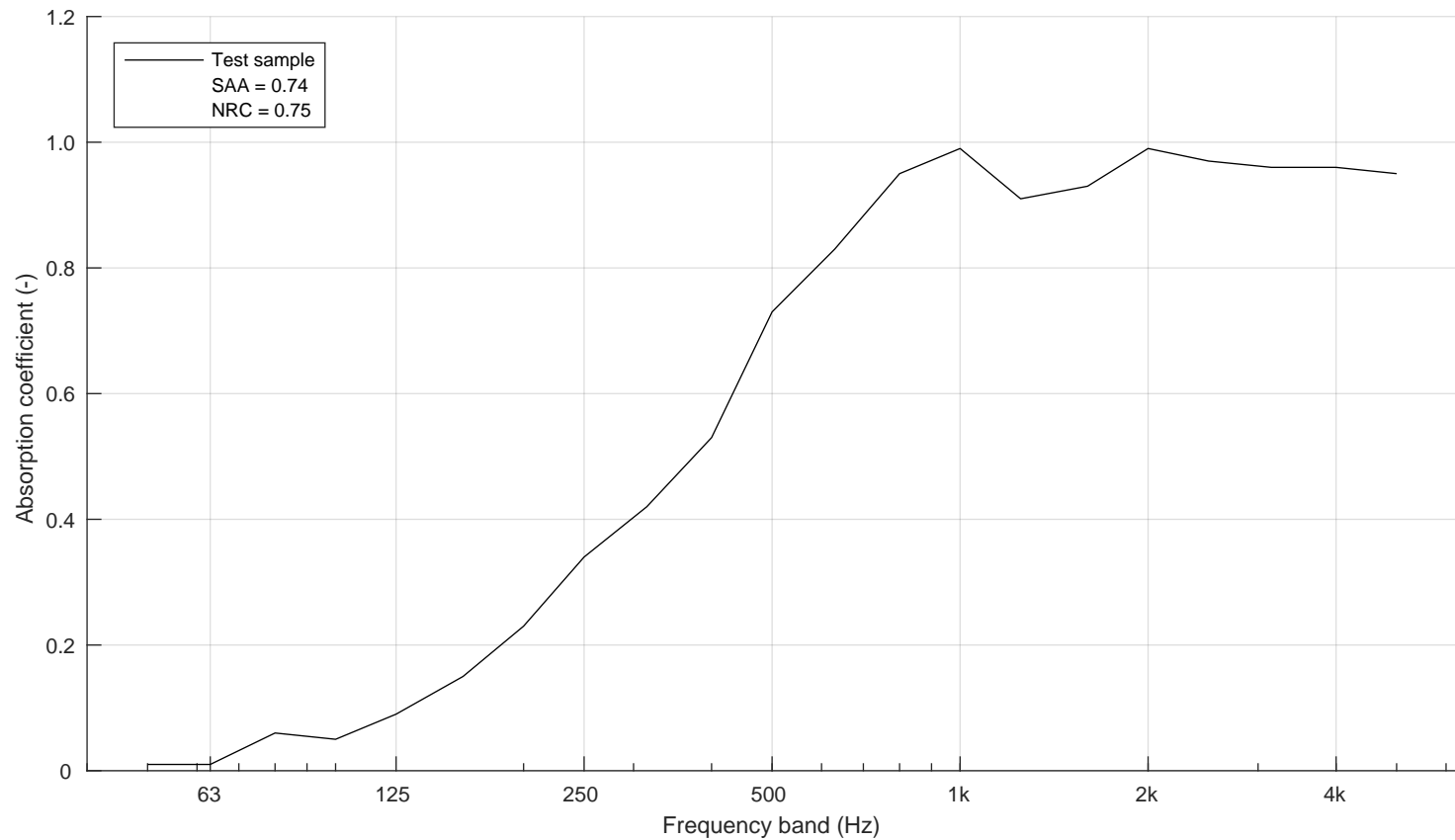
2017-06-07

Frequency f [Hz]	Sound absorption coefficient $\alpha$
50	0.01
63	0.01
80	0.06
100	0.05
125	0.09
160	0.15
200	0.23
250	0.34
315	0.42
400	0.53
500	0.73
630	0.83
800	0.95
1000	0.99
1250	0.91
1600	0.93
2000	0.99
2500	0.97
3150	0.96
4000	0.96
5000	0.95

Client: Offecct  
Manufacturer: Offecct  
Product identification: Soundwave Ceramic

Description of test specimen: Absorber of moulded polyester fibre.  
6x5 panels, each panel size: 585 x 585 x 60 mm.  
Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
Temperature: 18.7 °C (empty: 19.0 °C)  
Air humidity: 64 % (empty: 57 %)  
Air pressure: 98.9 kPa (empty: 98.8 kPa)  
Size of specimen: 10.3 m<sup>2</sup>  
Area weight: kg/m<sup>2</sup>  
Measurement date: 2017-05-29  
Measured by: Carl Nyqvist



Sound Absorption Average (SAA): 0.74

Noise Reduction Coefficient (NRC): 0.75

# Soundwave Ceramic Acoustic panel with 45 mm air gap

SOUND ABSORPTION COEFFICIENT PER ASTM C423-09A

Measurement of sound absorption coefficient by the reverberation room method

Report number:

17-159-M17

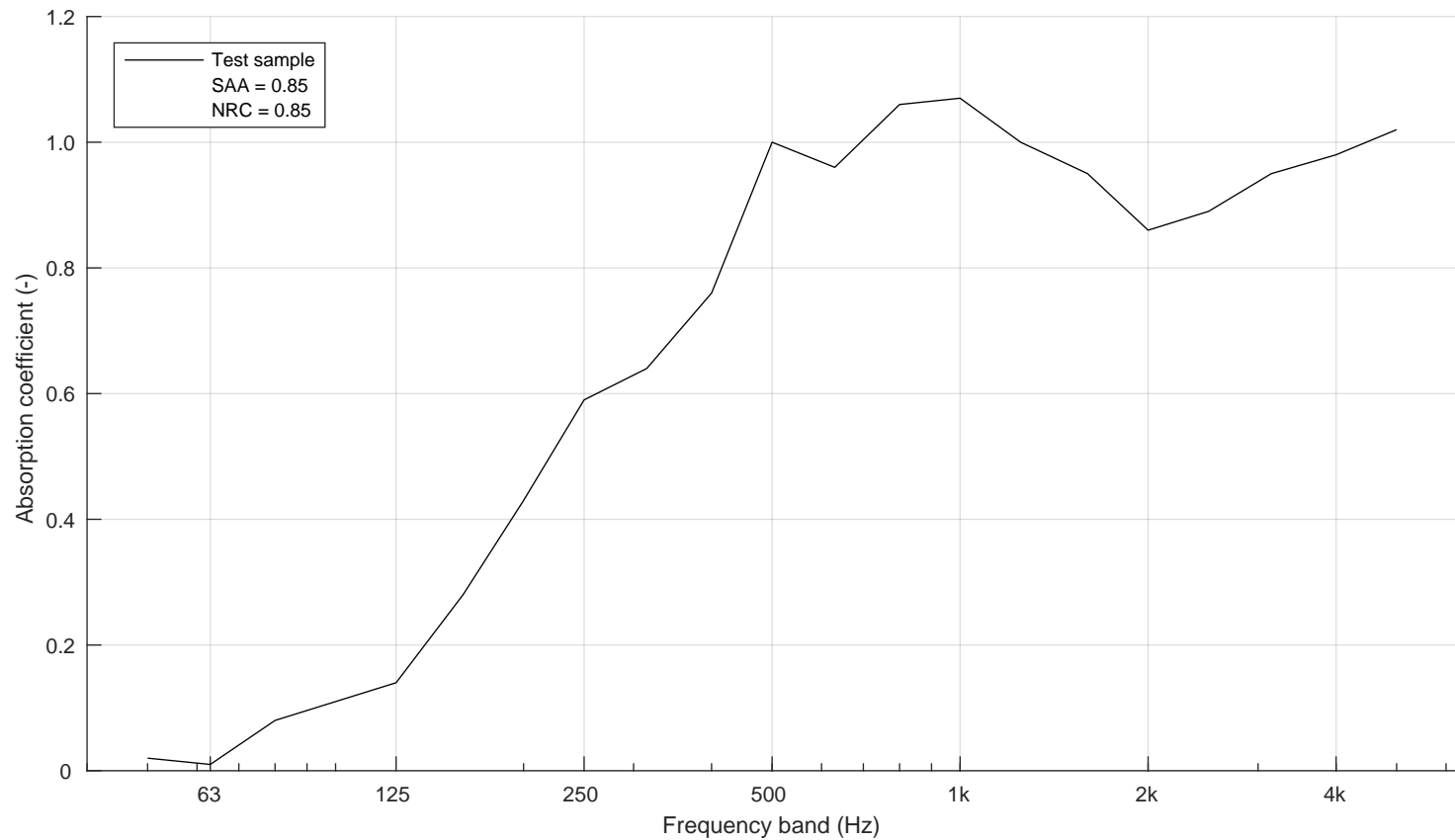
Date

2017-06-07

Frequency f [Hz]	Sound absorption coefficient $\alpha$
50	0.02
63	0.01
80	0.08
100	0.11
125	0.14
160	0.28
200	0.43
250	0.59
315	0.64
400	0.76
500	1.00
630	0.96
800	1.06
1000	1.07
1250	1.00
1600	0.95
2000	0.86
2500	0.89
3150	0.95
4000	0.98
5000	1.02

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic with 45 mm air gap  
 Description of test specimen: Absorber of moulded polyester fibre placed on 45 x 45 mm wood studs (c/c 585 mm).  
 6x5 panels, each panel size: 585 x 585 x 60 mm. Total thickness 105 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.7 °C (empty: 19.0 °C)  
 Air humidity: 64 % (empty: 57 %)  
 Air pressure: 98.9 kPa (empty: 98.8 kPa)  
 Size of specimen: 10.3 m<sup>2</sup>  
 Area weight: kg/m<sup>2</sup>  
 Measurement date: 2017-05-29  
 Measured by: Carl Nyqvist



Sound Absorption Average (SAA): 0.85

Noise Reduction Coefficient (NRC): 0.85

# Soundwave Ceramic Acoustic panel with 70 mm air gap

SOUND ABSORPTION COEFFICIENT PER ASTM C423-09A

Measurement of sound absorption coefficient by the reverberation room method

Report number:

17-159-M18

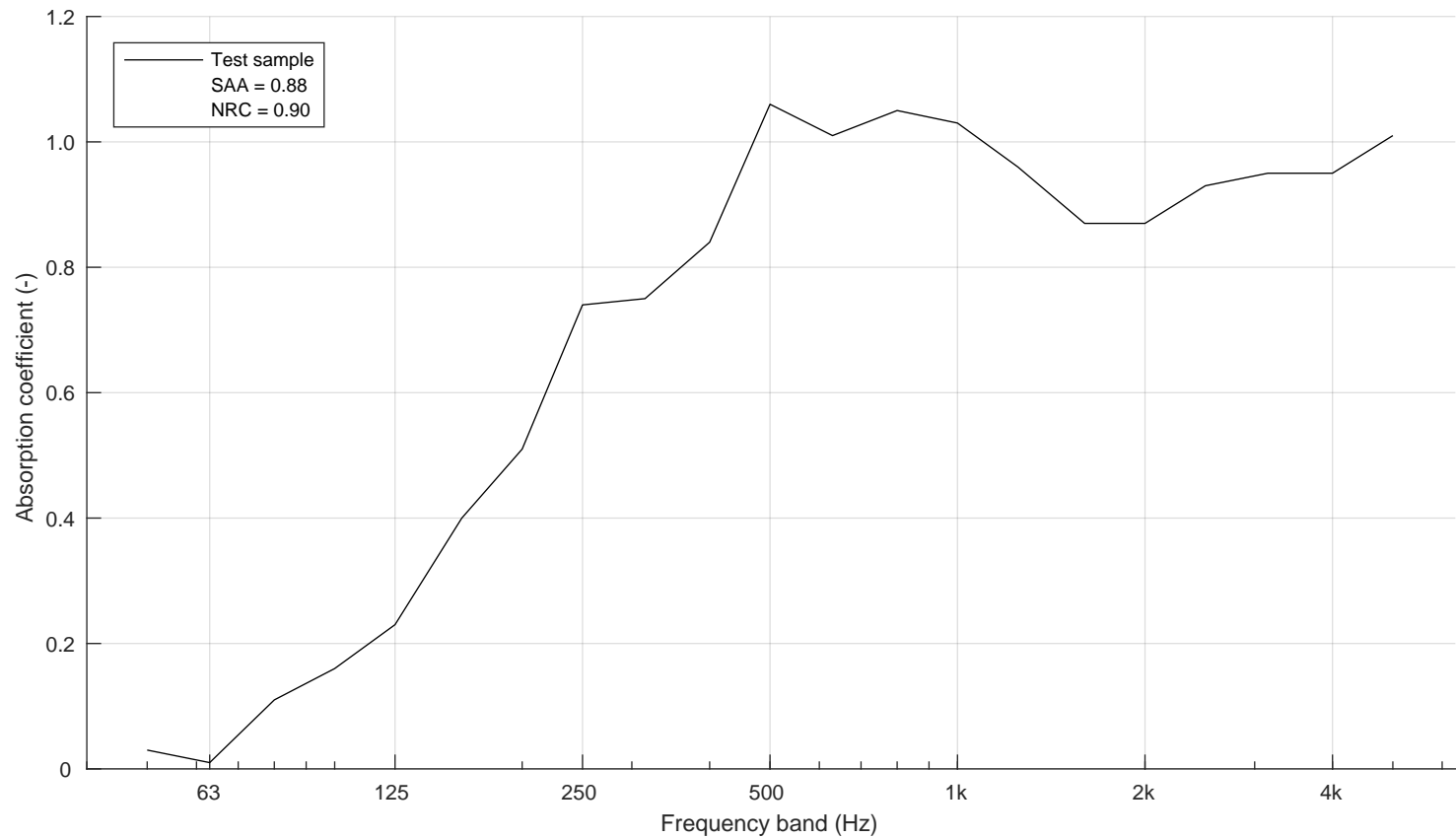
Date

2017-06-07

Frequency f [Hz]	Sound absorption coefficient $\alpha$
50	0.03
63	0.01
80	0.11
100	0.16
125	0.23
160	0.40
200	0.51
250	0.74
315	0.75
400	0.84
500	1.06
630	1.01
800	1.05
1000	1.03
1250	0.96
1600	0.87
2000	0.87
2500	0.93
3150	0.95
4000	0.95
5000	1.01

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic with 70 mm air gap  
 Description of test specimen: Absorber of moulded polyester fibre placed on 45 x 70 mm wood studs (c/c 585 mm).  
 6x5 panels, each panel size: 585 x 585 x 60 mm. Total thickness 130 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.7 °C (empty: 19.0 °C)  
 Air humidity: 65 % (empty: 57 %)  
 Air pressure: 98.9 kPa (empty: 98.8 kPa)  
 Size of specimen: 10.3 m<sup>2</sup>  
 Area weight: kg/m<sup>2</sup>  
 Measurement date: 2017-05-29  
 Measured by: Carl Nyqvist



Sound Absorption Average (SAA): 0.88

Noise Reduction Coefficient (NRC): 0.90

# Soundwave Ceramic Acoustic panel with 97 mm air gap

SOUND ABSORPTION COEFFICIENT PER ASTM C423-09A

Measurement of sound absorption coefficient by the reverberation room method

Report number:

17-159-M19

Date

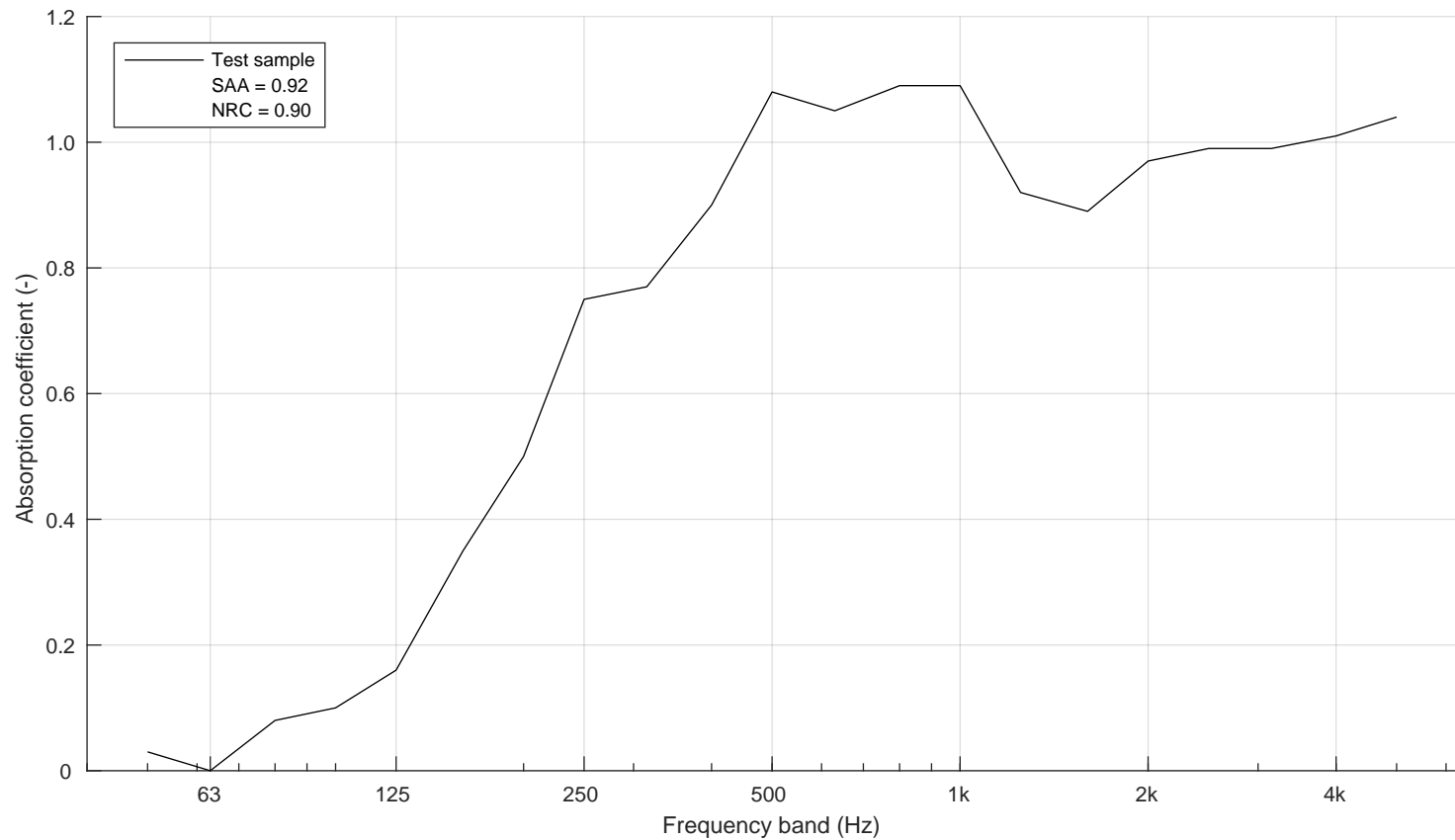
2017-06-07

Frequency f [Hz]	Sound absorption coefficient $\alpha$
50	0.03
63	0.00
80	0.08
100	0.10
125	0.16
160	0.35
200	0.50
250	0.75
315	0.77
400	0.90
500	1.08
630	1.05
800	1.09
1000	1.09
1250	0.92
1600	0.89
2000	0.97
2500	0.99
3150	0.99
4000	1.01
5000	1.04

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic with 97 mm air gap

Description of test specimen: Absorber of moulded polyester fibre placed on 45 x 97 mm wood studs (c/c 585 mm).  
 6x5 panels, each panel size: 585 x 585 x 60 mm. Total thickness 157 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.7 °C (empty: 19.0 °C)  
 Air humidity: 64 % (empty: 57 %)  
 Air pressure: 98.9 kPa (empty: 98.8 kPa)  
 Size of specimen: 10.3 m<sup>2</sup>  
 Area weight: kg/m<sup>2</sup>  
 Measurement date: 2017-05-29  
 Measured by: Carl Nyqvist



Sound Absorption Average (SAA): 0.92

Noise Reduction Coefficient (NRC): 0.90

# Soundwave Ceramic Acoustic panel with 45 mm mineral wool

SOUND ABSORPTION COEFFICIENT PER ASTM C423-09A

Measurement of sound absorption coefficient by the reverberation room method

Report number:

17-159-M20

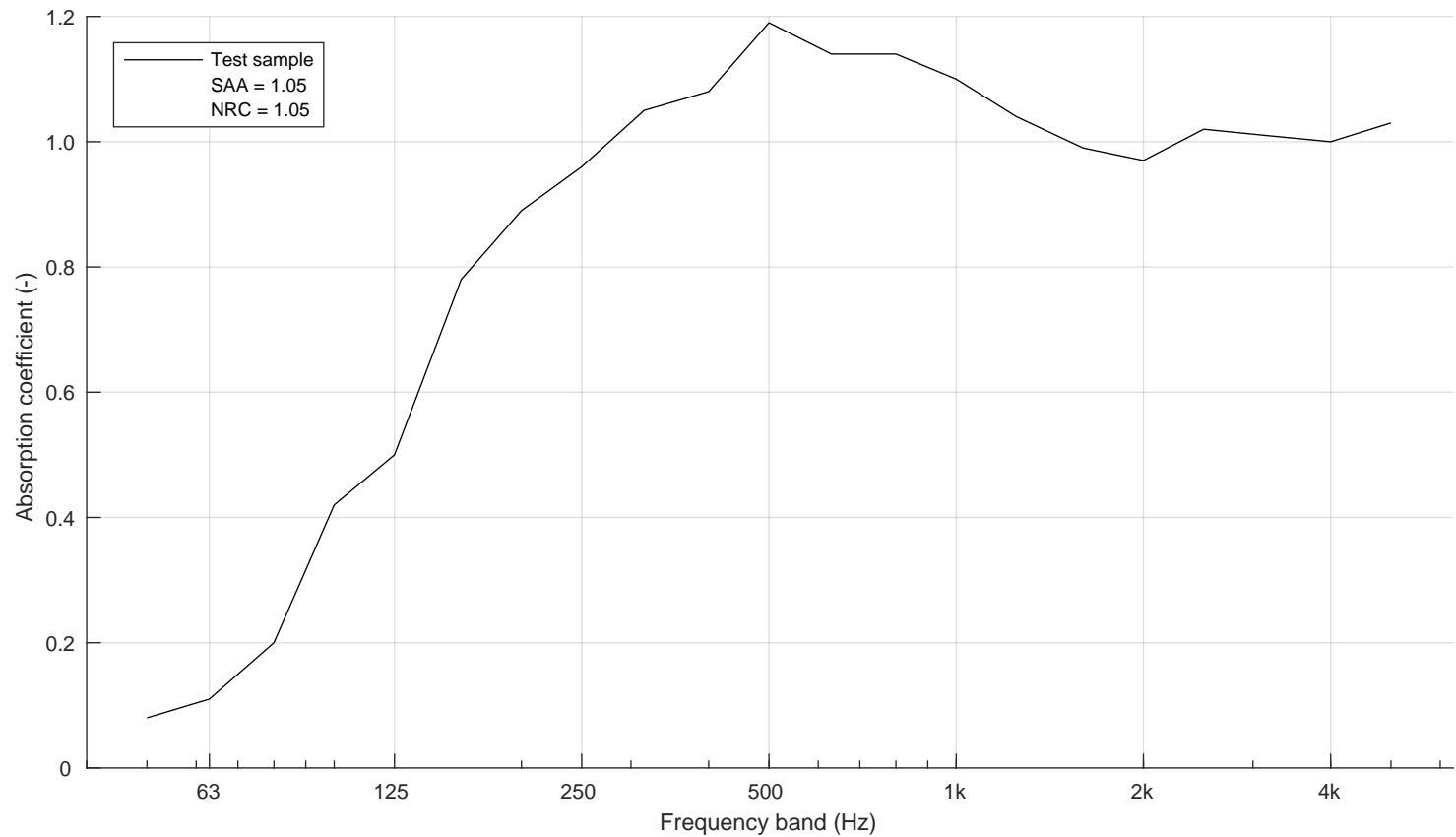
Date

2017-06-07

Frequency f [Hz]	Sound absorption coefficient $\alpha$
50	0.08
63	0.11
80	0.20
100	0.42
125	0.50
160	0.78
200	0.89
250	0.96
315	1.05
400	1.08
500	1.19
630	1.14
800	1.14
1000	1.10
1250	1.04
1600	0.99
2000	0.97
2500	1.02
3150	1.01
4000	1.00
5000	1.03

Client: Offecct  
 Manufacturer: Offecct  
 Product identification: Soundwave Ceramic with 45 mm mineral wool  
 Description of test specimen: Absorber of moulded polyester fibre placed on 45 x 45 mm wood studs (c/c 585 mm). Airgap between studs filled with 45 mm Knauf Ecobatt 035 Glass fibre wool.  
 6x5 panels, each panel size: 585 x 585 x 60 mm. Total thickness 105 mm.  
 Placed directly on floor, type A mounting.

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 18.1 °C (empty: 18.5 °C)  
 Air humidity: 52 % (empty: 56 %)  
 Air pressure: 99.2 kPa (empty: 99.2 kPa)  
 Size of specimen: 10.3 m<sup>2</sup>  
 Area weight: kg/m<sup>2</sup>  
 Measurement date: 2017-06-01  
 Measured by: Carl Nyqvist



Sound Absorption Average (SAA): 1.05

Noise Reduction Coefficient (NRC): 1.05