# Ceiling E-400, 7.2 m$^2$

SOUND ABSORPTION COEFFICIENT PER ASTM C423-17

Measurement of sound absorption coefficient by the reverberation room method

Report number:
21-708-M6a
Date
2021-04-09

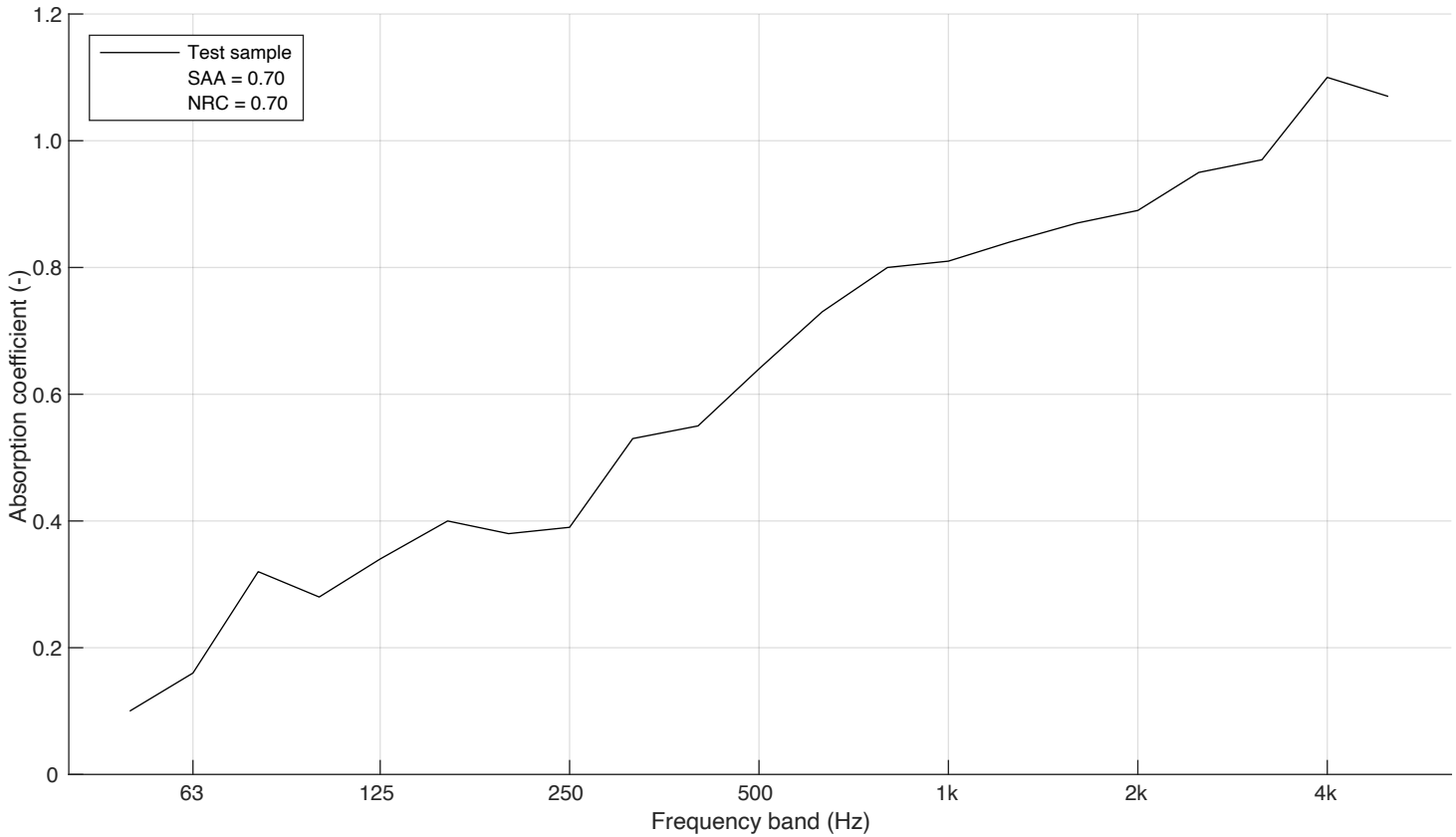
| Frequency f [Hz] | Sound absorption coefficient $\alpha$ |
|---|---|
| 50 | 0.10 |
| 63 | 0.16 |
| 80 | 0.32 |
| 100 | 0.28 |
| 125 | 0.34 |
| 160 | 0.40 |
| 200 | 0.38 |
| 250 | 0.39 |
| 315 | 0.53 |
| 400 | 0.55 |
| 500 | 0.64 |
| 630 | 0.73 |
| 800 | 0.80 |
| 1000 | 0.81 |
| 1250 | 0.84 |
| 1600 | 0.87 |
| 2000 | 0.89 |
| 2500 | 0.95 |
| 3150 | 0.97 |
| 4000 | 1.10 |
| 5000 | 1.07 |

Sound Absorption Average (SAA): 0.70

Noise Reduction Coefficient (NRC): 0.70

| | |
|---|---|
| Client: | Nordgröna AB |
| Manufacturer: | Nordgröna AB |
| Product identification: | Ceiling |
| Description of test specimen: | Sound absorbing tiles made of reindeer moss in an aluminum cartridge. Material thickness 40-70 mm. 20 tiles were placed in a grid for suspended ceilings with a total construction height of 400 mm (E-400 mounting). |

| | | | |
|---|---|---|---|
| Reverberation room volume: | 200 m$^3$ | | |
| Temperature: | 15.0 °C | (empty: | 15.0 °C) |
| Air humidity: | 41 % | (empty: | 38 %) |
| Air pressure: | 96.8 kPa | (empty: | 96.8 kPa) |
| Size of specimen: | 7.2 m$^2$ | | |
| Area weight: | 18 kg/m$^2$ | | |
| Measurement date: | 2021-03-11 | | |
| Measured by: | Johan Jernstedt | | |




AKUSTIKVERKSTAN

# Ceiling Type A-mounting, 7.2 m$^2$

SOUND ABSORPTION COEFFICIENT PER ASTM C423-17

Measurement of sound absorption coefficient by the reverberation room method

Report number:
21-708-M5a
Date
2021-04-09

| Frequency f [Hz] | Sound absorption coefficient $\alpha$ |
|---|---|
| 50 | 0.07 |
| 63 | 0.02 |
| 80 | 0.07 |
| 100 | 0.03 |
| 125 | 0.13 |
| 160 | 0.16 |
| 200 | 0.24 |
| 250 | 0.24 |
| 315 | 0.37 |
| 400 | 0.47 |
| 500 | 0.61 |
| 630 | 0.75 |
| 800 | 0.85 |
| 1000 | 0.85 |
| 1250 | 0.82 |
| 1600 | 0.82 |
| 2000 | 0.78 |
| 2500 | 0.85 |
| 3150 | 0.99 |
| 4000 | 0.94 |
| 5000 | 0.96 |

Sound Absorption Average (SAA): 0.64

Noise Reduction Coefficient (NRC): 0.60

Client: Nordgröna AB

Manufacturer: Nordgröna AB

Product identification: Ceiling

Description of test specimen: Sound absorbing tiles made of reindeer moss in an aluminum cartridge.
Measurement of 20 tiles directly on floor (Type A mounting).
Material thickness 40-70 mm.

Reverberation room volume: 200 m$^3$

Temperature: 16.0 °C (empty: 19.0 °C)

Air humidity: 40 % (empty: 34 %)

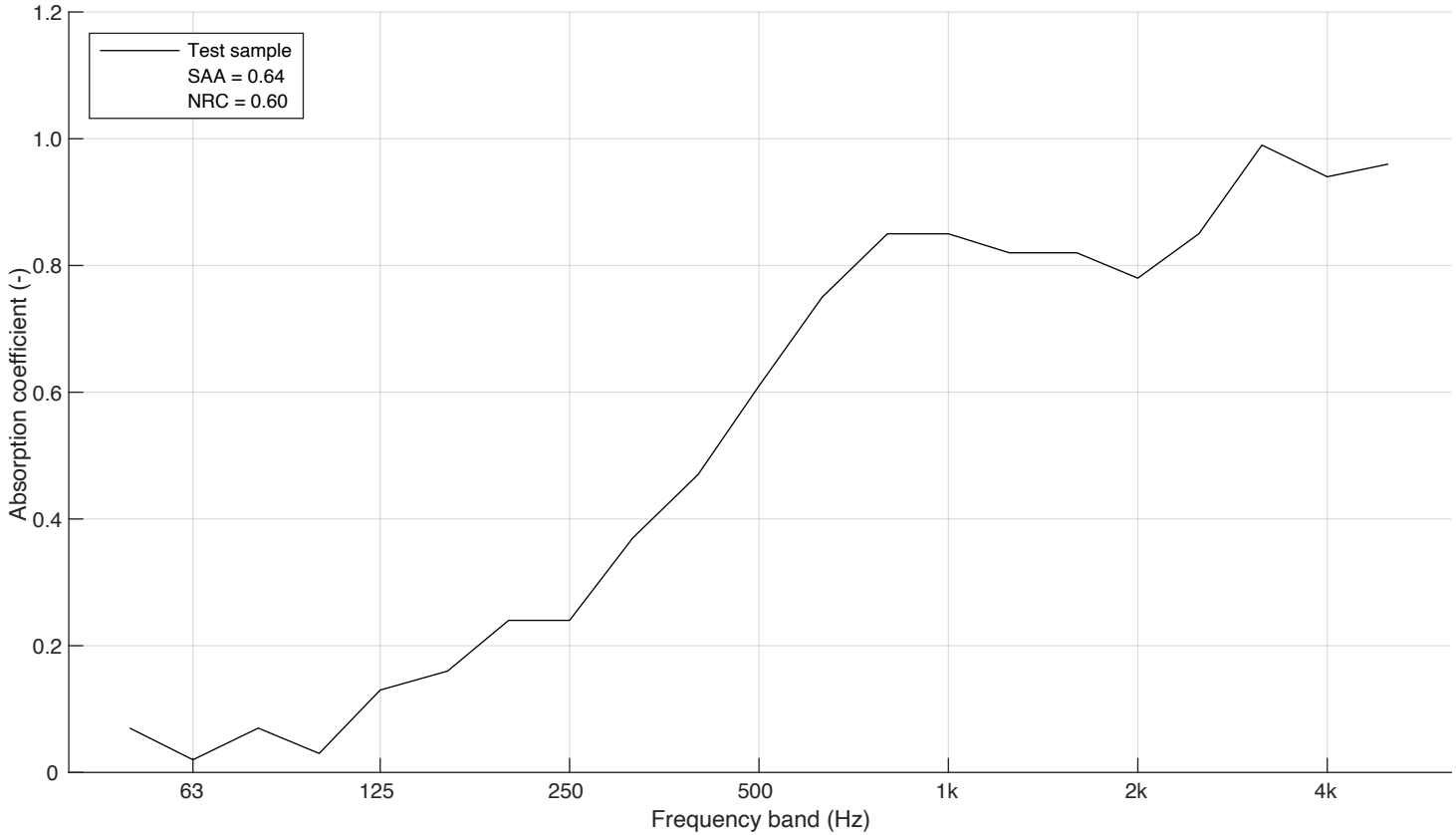
Air pressure: 96.8 kPa (empty: 96.8 kPa)

Size of specimen: 7.2 m$^2$

Area weight: 18 kg/m$^2$

Measurement date: 2021-03-11

Measured by: Johan Jernstedt




AKUSTIKVERKSTAN