

Client: Saint-Gobain Ecophon AB
SE-265 03 Hyllinge, Sweden

Results 1

Test Specimen:

Suspended ceiling, type: "Tonga dB 41 A", made of stone wool tiles (test object S 12178-08).

Suspended ceiling made of stone wool tiles, covered with glass veil back-facer (back) and painted glass fibre surface on the visible side (front). The tiles were laid in a grid system, type: "Connect T24". The grid was suspended using suspension elements made of steel.

Standard dimension of one tile: 1200 mm x 600 mm x 38 mm (length x width x thickness)

Area related mass: 6.6 kg/m²

Air flow resistance: unknown

Suspension height: 700 mm

Area of the whole ceiling: 4.72 m x 4.00 m (room 1, length x width)

5.82 m x 4.00 m (room 2, length x width)

Test date: Nov. 15, 2023

Test lab: P5

Ref. area: 10.00 m²

Volumes: V_S = 55.2 m³

V_E = 72.7 m³

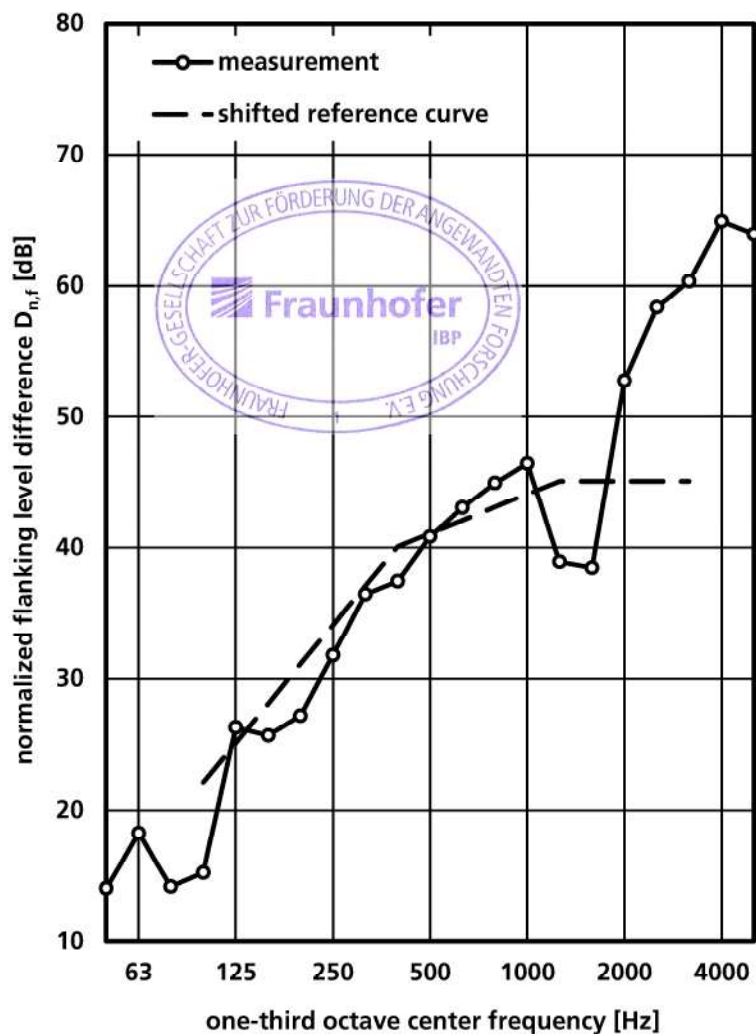
Rel. humidity: 45 ± 2 %

Air temperature: 21.8 ± 0.3 °C

Stat. pressure: 970 ± 1 hPa

Noise: Pink noise

f [Hz]	D _{n,f} [dB]
50	14.0
63	18.2
80	14.2
100	15.2
125	26.3
160	25.7
200	27.2
250	31.8
315	36.5
400	37.5
500	40.9
630	43.1
800	45.0
1000	46.4
1250	38.9
1600	38.5
2000	52.7
2500	58.4
3150	60.3
4000	64.9
5000	63.9



"z": background noise and R_{max} correction acc. to Annex F1.

Weighted sound reduction index and spectrum adaption terms acc. to DIN EN ISO 717-1

D_{n,f,w} = 41.1 ± 1.2 dB

C₁₀₀₋₃₁₅₀ = -2 dB C₁₀₀₋₅₀₀₀ = -1 dB C₅₀₋₃₁₅₀ = -3 dB C₅₀₋₅₀₀₀ = -2 dB
C_{tr,100-3150} = -8 dB C_{tr,100-5000} = -8 dB C_{tr,50-3150} = -11 dB C_{tr,50-5000} = -11 dB



The test was carried out in laboratory facilities of the IBP which is accredited acc. to DIN EN ISO/IEC 17025:2018 by the Dakks. The accreditation certificate is D-PL-11140-11-00.

Stuttgart, February 15, 2024
Head of the test laboratory: