

Sound reduction index in accordance with PN - EN ISO 10140-2:2021-10E

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**

Measurement date: **24.09.2024**

Address: **Stasjonsveien 46, N-4460 Moi, Norway**

Test specimen: **ND NTech Villa double balcony wooden door – TX/BX system**

Outward-opening

One active and one passive leaf, door leaf with movable post.

The same glazing in both door leaf. Glazing:

8,76 / 16 Ar / 6 (PRESSGLASS)

Size of door: **1588 x 2088 x 80 mm** (wide x height x doors leaf frame thickness)

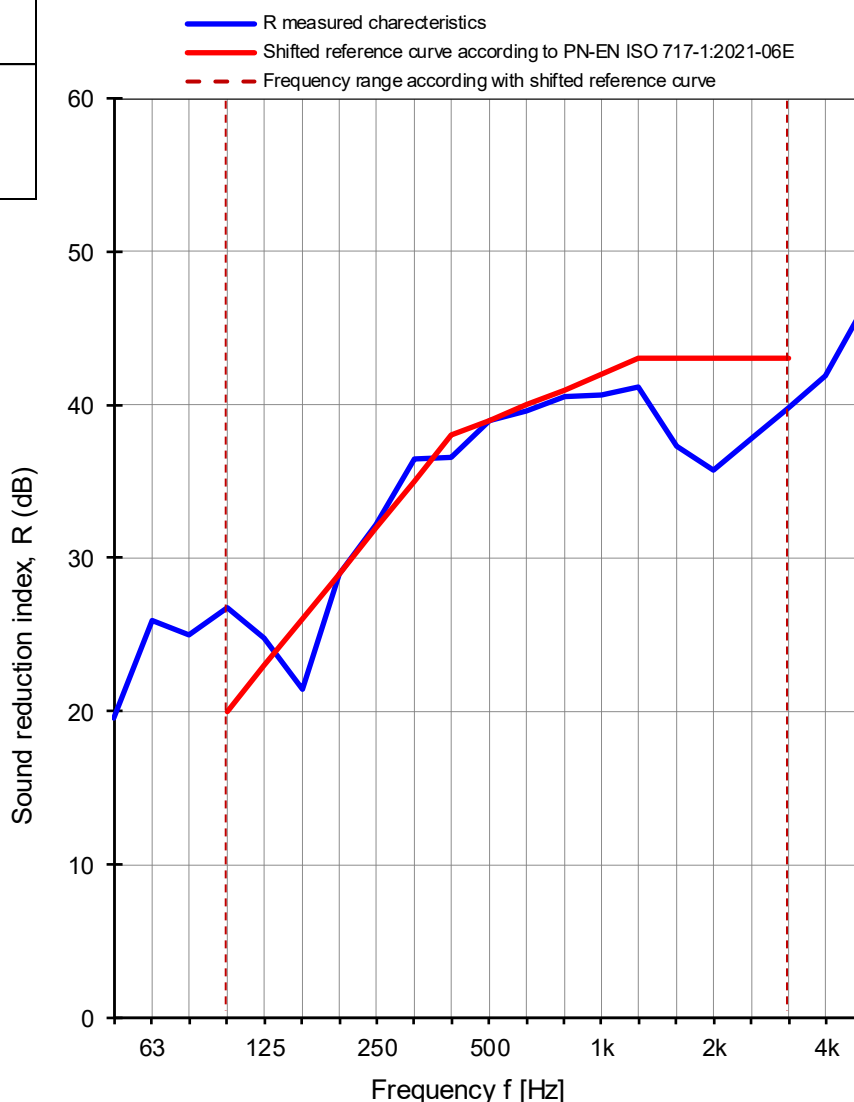
Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m²**

The surface area of test specimen: **3,42 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	21,2	21,1
Humidity [%]	58	58
Pressure [hPa]	1001	1001
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	19,6	2,4
63	25,9	3,2
80	24,9	3,4
100	26,7	1,8
125	24,8	1,9
160	21,4	1,4
200	29,0	1,3
250	32,1	1,6
315	36,5	1,4
400	36,6	1,4
500	39,0	1,1
630	39,6	1,1
800	40,5	1,1
1000	40,6	1,0
1250	41,2	1,0
1600	37,3	1,1
2000	35,8	1,0
2500	37,8	1,0
3150	39,8	1,0
4000	41,9	1,0
5000	46,4	1,1



Measurement uncertainty of sound reduction U_{CR}

Confidence level 95% at coverage factor, k=2

Weighted sound reduction index in accordance with PN-EN ISO 717-1:2021-06E

R_w (C; C_{tr}) = 39 (-2; -4) dB

C₅₀₋₃₁₅₀ = -2 dB

C₅₀₋₅₀₀₀ = -1 dB

C₁₀₀₋₅₀₀₀ = -1 dB

C_{tr, 50-3150} = -5 dB

C_{tr, 50-5000} = -5 dB

C_{tr, 100-5000} = -4 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: **GLA-1676.22 / 24**

Date of analysis: 24.09.2024

Signature: Robert Dybicz