

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: **25.09.2024**

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:

6,38 / 16 Ar / FL 4 / 20 Ar / 4 (PRESSGLASS)

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

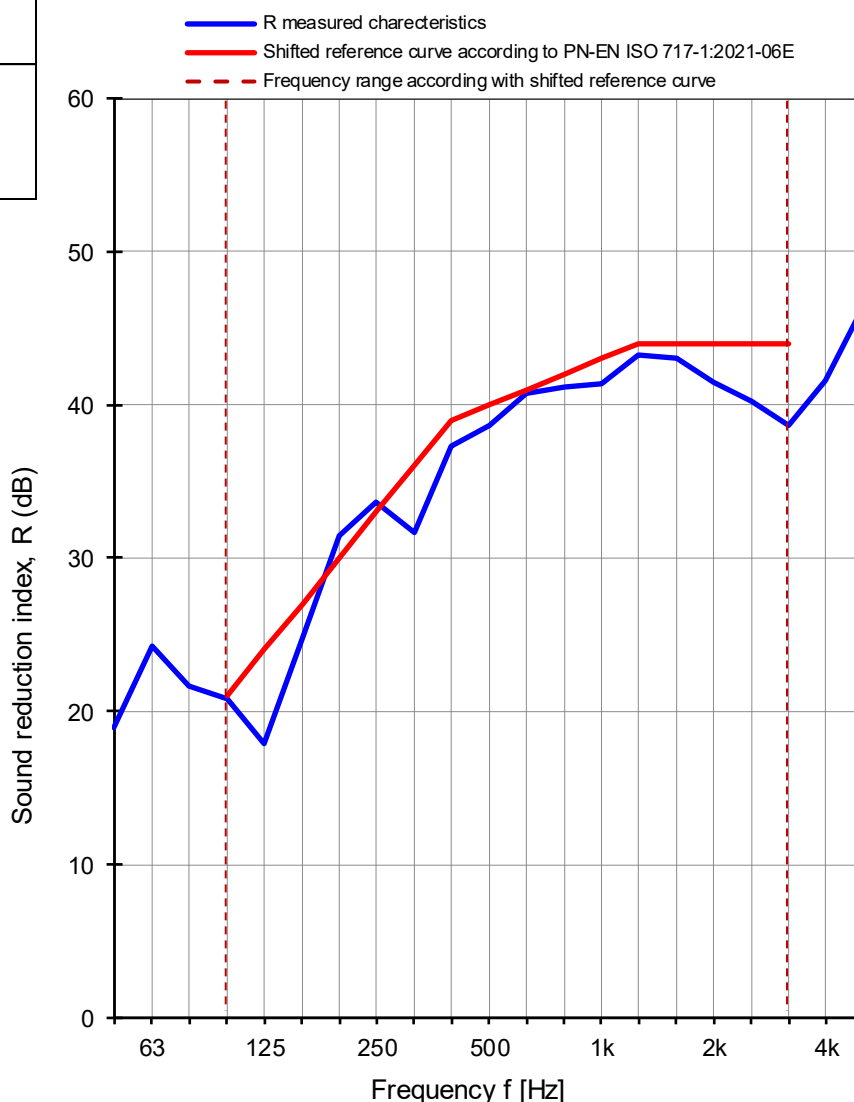
Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m²**

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

Parameter	Receiving room	Source room
Air temp. [°C]	21,1	21,1
Humidity [%]	58	58
Pressure [hPa]	1004	1004
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	19,0	3,2
63	24,2	3,5
80	21,6	3,6
100	20,8	2,0
125	17,9	2,0
160	24,8	1,4
200	31,5	1,6
250	33,7	1,4
315	31,6	1,2
400	37,3	1,4
500	38,7	1,1
630	40,7	1,1
800	41,2	1,1
1000	41,3	1,0
1250	43,2	1,0
1600	43,0	1,0
2000	41,5	1,0
2500	40,3	0,9
3150	38,7	1,0
4000	41,6	1,0
5000	46,5	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}) = 40 (-2; -6) dB

C₅₀₋₃₁₅₀ = -3 dB

C₅₀₋₅₀₀₀ = -2 dB

C₁₀₀₋₅₀₀₀ = -2 dB

C_{tr, 50-3150} = -7 dB

C_{tr, 50-5000} = -7 dB

C_{tr, 100-5000} = -6 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: **GLA-1676.28 / 24**

Date of analysis: 25.09.2024

Signature: Robert Dybicz