

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**
 Address: **Stasjonsveien 46, N-4460 Moi, Norway**
 Test specimen: **ND NTech Villa double balcony door – wooden door, 2l system**
 Inward-opening
 One active and one passive leaf, door leaf with movable post.
 The same glazing in both door leaves. Glazing:
 6,38 / 16 Ar / 4 FL / 20 Ar / 4 (GLASSOLUTIONS)

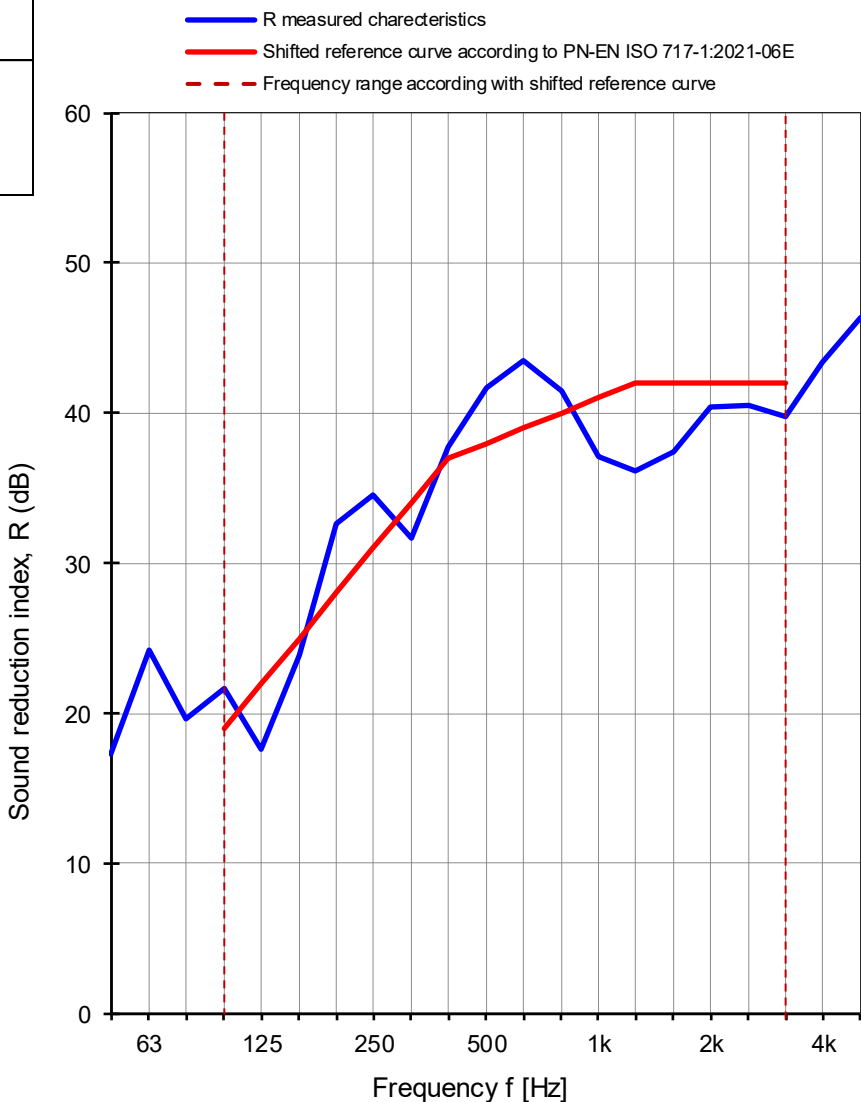
Measurement date: **28.08.2024**

Size of door: **1588 x 2088 x 80 mm** (width 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: **3,43 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	22,6	22,4
Humidity [%]	56	54
Pressure [hPa]	1022	1022
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	17,2	3,0
63	24,2	3,0
80	19,6	3,8
100	21,6	2,0
125	17,6	1,8
160	23,9	1,5
200	32,6	1,7
250	34,5	1,4
315	31,7	1,3
400	37,8	1,2
500	41,7	1,1
630	43,5	1,1
800	41,4	1,0
1000	37,1	1,0
1250	36,1	1,1
1600	37,5	1,0
2000	40,4	1,0
2500	40,6	0,9
3150	39,8	0,9
4000	43,4	0,9
5000	46,4	1,0

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})= 38 (-1; -5) dB	C ₅₀₋₃₁₅₀ = -2 dB	C ₅₀₋₅₀₀₀ = -1 dB	C ₁₀₀₋₅₀₀₀ = -1 dB
	C _{tr, 50-3150} = -6 dB	C _{tr, 50-5000} = -6 dB	C _{tr, 100-5000} = -5 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
 No. of test specimen: **GLA-1676.10 / 24**
 Date of analysis: 28.08.2024

Signature: Robert Dybicz