

Sound reduction index in accordance with PN - EN ISO 10140-2 (2011)

Laboratory measurements of airborne sound insulation of building elements

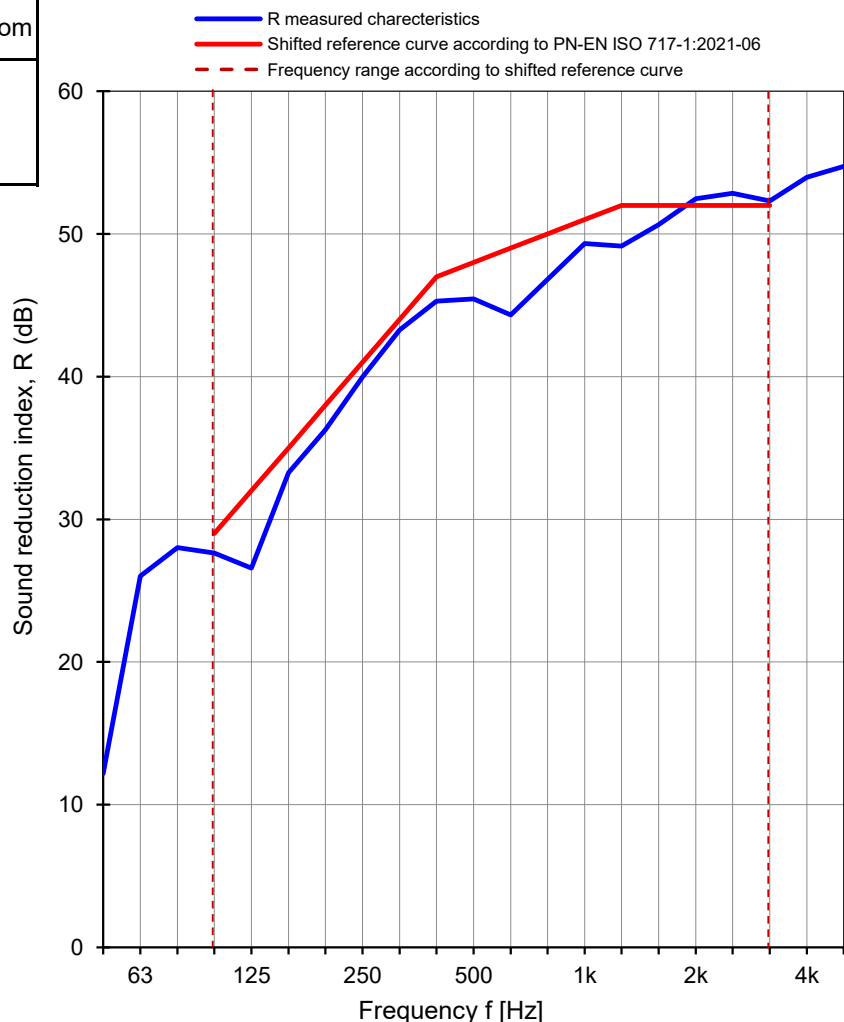
Client: **NorDan Sp. z o.o.**
Address: **Powodowo 54, 64-200 Wolsztyn**Measurement date: **09.11.2021**Test specimen: **Wooden window**
Construction: TL EI60, ND NTech Villa Fixed frame
Frame thickness: 105 mm
Glazed by: 44.2 SR Foil / 16 Ar / 25 EI 60**Pi LNR: 150**

Description of the test facility, test specimen and test arrangement:

Size of test specimen: **1230 x 1480 mm**Test specimen mounted by: **NorDan Sp. z o.o.**The surface area of test specimen: **1,87 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	21,4	21,3
Humidity [%]	52	59
Pressure [hPa]	1028	1028
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	* 12,2	3,0
63	* 26,0	1,5
80	28,0	1,7
100	27,6	2,7
125	26,6	1,6
160	33,3	1,0
200	36,3	1,2
250	40,0	1,0
315	43,3	1,1
400	45,3	1,0
500	45,5	0,8
630	44,3	0,7
800	46,8	1,0
1000	49,3	0,8
1250	49,1	0,7
1600	50,7	0,8
2000	52,5	0,7
2500	52,9	0,9
3150	52,3	0,9
4000	54,0	1,2
5000	54,7	2,4

Measurement uncertainty of sound reduction U_{CR}

Confidence level 95% at coverage factor, k=2

* - Lp-Lp_{background} < 6 dB

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

R_w (C; C_{tr}) = 48 (-2; -7) dBC₅₀₋₃₁₅₀ = -3 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -13 dBC_{tr, 50-5000} = -13 dBC_{tr, 100-5000} = -7 dB**R_w = 48,1 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.57 / 21

Date: 09.11.2021

Signature: Robert Dybicz