

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.**Measurement date: **03.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 40****Construction: TG, ND NTech Villa Topswing reversible****Frame thickness: 105 mm****Glazed by: 44.2 SR Foil / 20 Ar / 44.1 SR Foil**

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

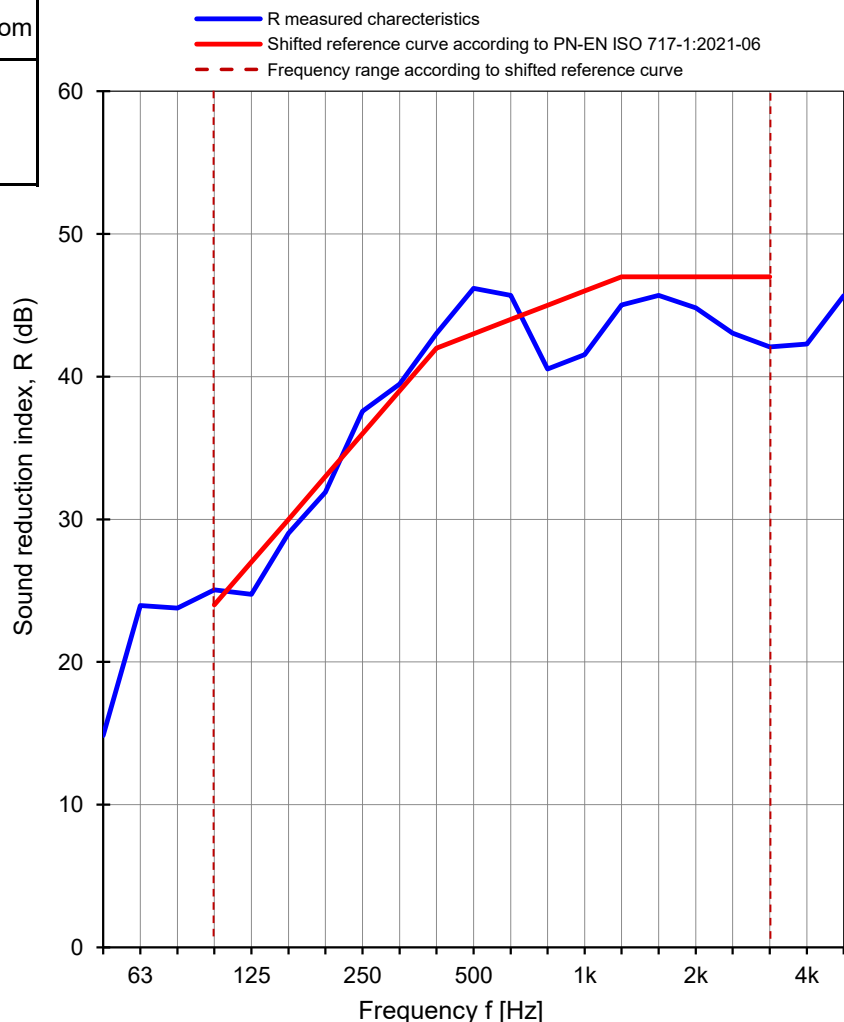
Size of test specimen: **1230 x 1480 mm**

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]	21,9	21,8
Humidity [%]	59	58
Pressure [hPa]	1003	1003
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	* 14,9	3,1
63	* 23,9	2,2
80	23,8	1,9
100	25,1	2,6
125	24,7	1,6
160	29,0	1,5
200	31,9	1,0
250	37,6	1,3
315	39,5	1,0
400	43,0	1,0
500	46,2	0,9
630	45,7	1,0
800	40,5	1,1
1000	41,5	0,8
1250	45,0	0,7
1600	45,7	0,7
2000	44,8	0,7
2500	43,1	0,9
3150	42,1	1,0
4000	42,3	1,2
5000	45,7	1,1

Measurement uncertainty of sound reduction U_{CR}

Confidence level 95% at coverage factor, k=2

* - L_p-L_{pbackground} < 6 dB

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

R_w (C; C_{tr}) = 43 (-2; -5) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -8 dBC_{tr, 50-5000} = -8 dBC_{tr, 100-5000} = -5 dB**R_w = 43,4 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.30 / 21

Date: 03.11.2021

Signature: Robert Dybicz