

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: **23.09.2021**

Address: **Powodowo 54, 64-200 Wolsztyn**

Test specimen: **Wooden fixed window**

Pi LNR: **15**

Construction: **TL, ND Ntech Villa Fixed frame 105mm**

Glazed by:

86.2 SR Foil / 24 Ar / 8

Frame thickness: **105 mm**

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

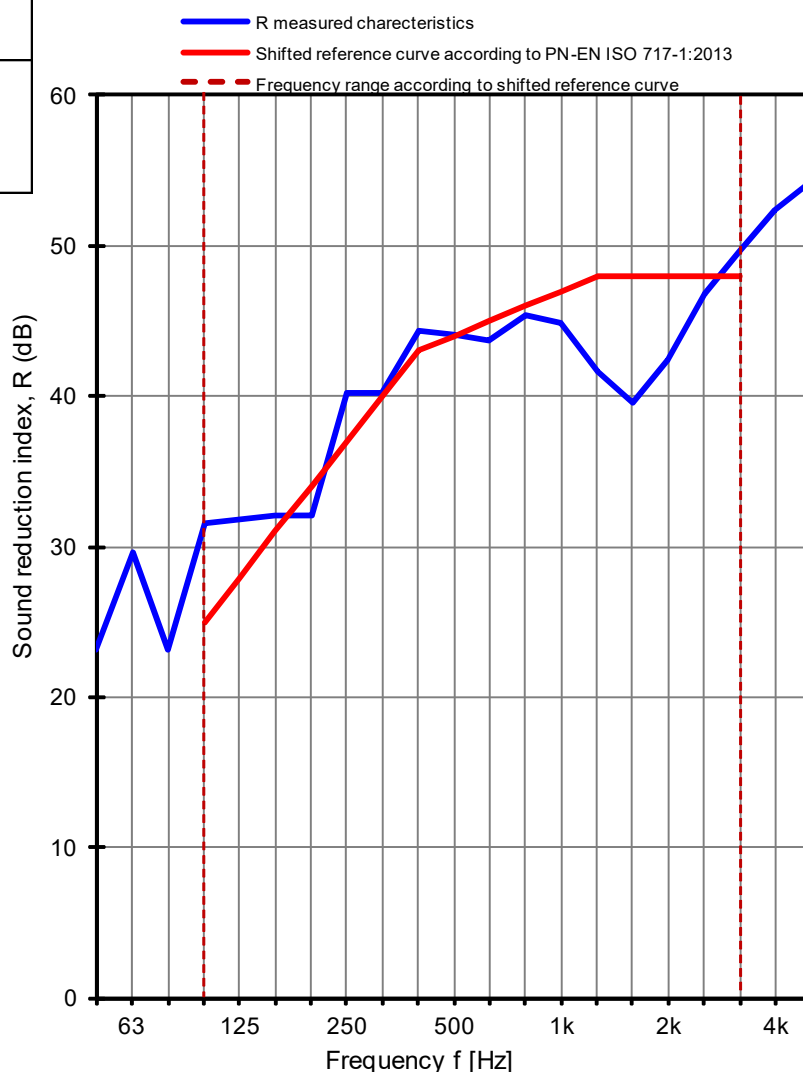
Size of test specimen: **1230 x 1480 mm**

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

The surface area of test specimen: **1,90 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	21,0	21,0
Humidity [%]	58	58
Pressure [hPa]	1007	1007
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	23,1	3,2
63	29,6	2,4
80	23,2	2,4
100	31,6	2,6
125	31,9	1,9
160	32,0	1,7
200	32,0	1,3
250	40,2	1,5
315	40,2	1,0
400	44,4	1,1
500	44,1	1,0
630	43,7	1,0
800	45,4	0,9
1000	44,8	0,7
1250	41,6	0,7
1600	39,5	0,7
2000	42,4	0,7
2500	46,8	0,7
3150	49,6	0,9
4000	52,4	1,1
5000	54,3	1,4



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}) = 44 (-2; -3) dB

C₅₀₋₃₁₅₀ = -2 dB

C₅₀₋₅₀₀₀ = -1 dB

C₁₀₀₋₅₀₀₀ = -1 dB

C_{tr, 50-3150} = -6 dB

C_{tr, 50-5000} = -6 dB

C_{tr, 100-5000} = -3 dB

R_w = 44,4 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.18 / 21

Date: 23.09.2021

Signature: Robert Dybicz

Figure 8. Characteristics of airborne sound insulation of test specimen No. GLA-1544.18 / 21