

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

Laboratory measurements of airborne sound insulation of building elements

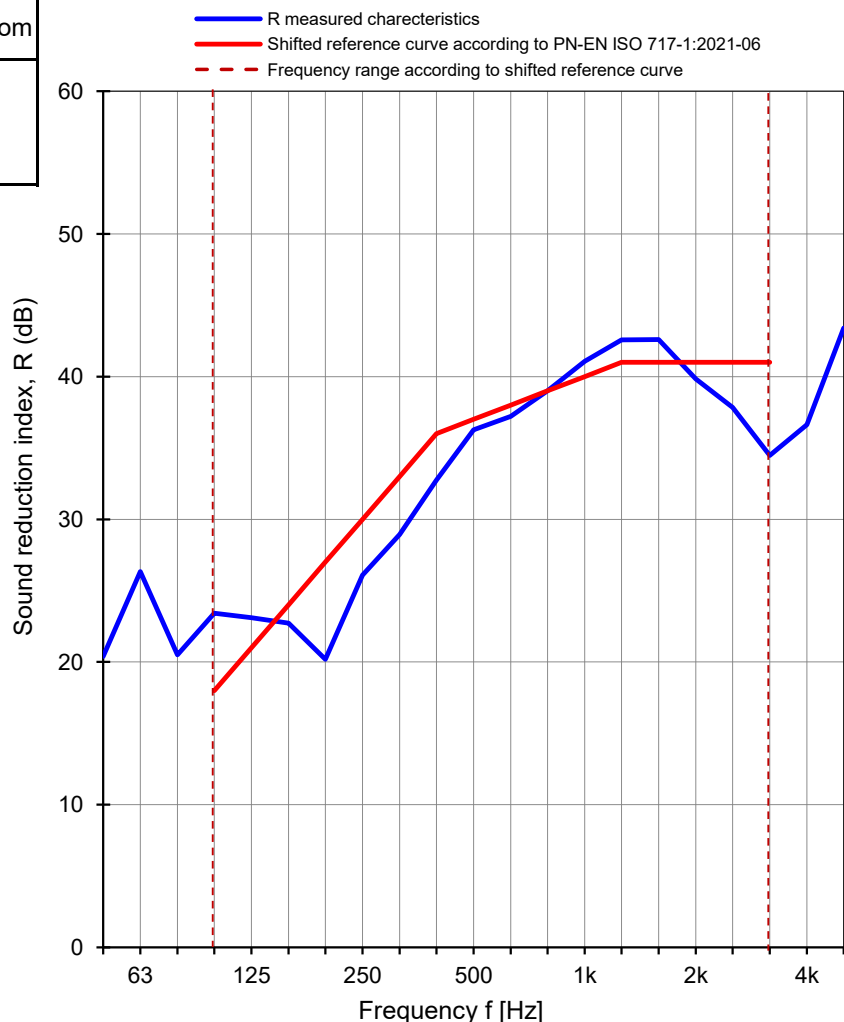
Client: **NorDan Sp. z o.o.**
Address: **Powodowo 54, 64-200 Wolsztyn**Measurement date: **08.11.2021**Test specimen: **Wooden window**
Construction: TQ ND NTech Villa Topguided
Frame thickness: 105 mm
Glazed by: 6 / 16 Ar / 4**Pi LNR: 75**

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]	19,2	19,8
Humidity [%]	58	58
Pressure [hPa]	1015	1015
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	20,4	3,1
63	26,3	2,7
80	20,5	2,6
100	23,4	2,5
125	23,1	1,6
160	22,7	1,1
200	20,2	1,9
250	26,1	1,1
315	28,9	0,9
400	32,7	1,1
500	36,3	0,9
630	37,2	0,9
800	39,0	0,8
1000	41,1	0,7
1250	42,6	0,7
1600	42,6	0,7
2000	39,8	0,7
2500	37,8	0,7
3150	34,5	1,0
4000	36,6	1,0
5000	43,4	1,2

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 717-1:2021-06

R_w (C; C_{tr}) = 37 (-2; -5) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -2 dBC_{tr, 50-3150} = -6 dBC_{tr, 50-5000} = -6 dBC_{tr, 100-5000} = -5 dB**R_w = 37,0 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.52 / 21

Date: 08.11.2021

Signature: Robert Dybicz