

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

Laboratory measurements of airborne sound insulation of building elements

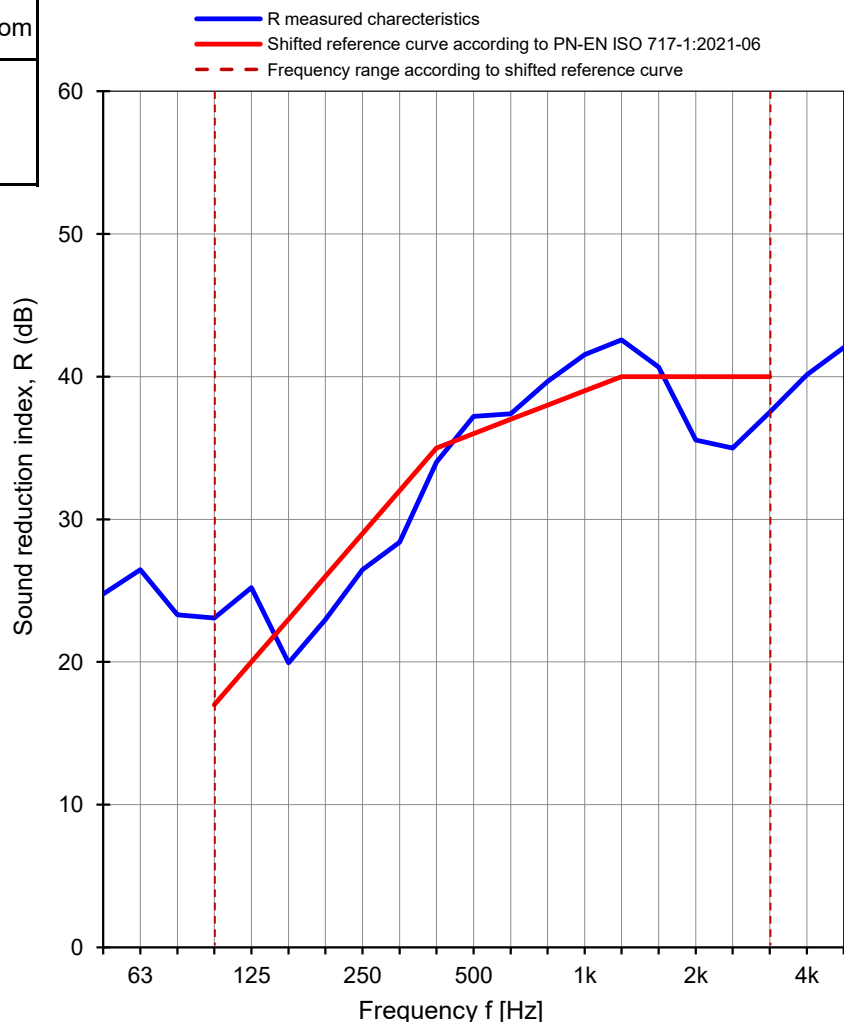
Client: **NorDan Sp. z o.o.**Measurement date: **02.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 5****Construction: TG, ND NTech Villa Topswing reversible****Frame thickness: 92 mm****Glazed by: 33.1 PVB / 16 Ar / 6**

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]	20,4	20,8
Humidity [%]	54	55
Pressure [hPa]	999	999
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	24,8	2,3
63	26,5	2,0
80	23,3	1,1
100	23,1	2,7
125	25,2	1,6
160	19,9	1,0
200	23,0	1,4
250	26,5	1,3
315	28,4	1,3
400	34,0	0,9
500	37,2	0,7
630	37,4	0,8
800	39,7	0,8
1000	41,5	0,8
1250	42,6	0,8
1600	40,7	0,7
2000	35,6	0,7
2500	35,0	0,8
3150	37,5	0,9
4000	40,1	1,1
5000	42,0	1,3

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}) = 36 (-1; -4) dBC₅₀₋₃₁₅₀ = -1 dBC₅₀₋₅₀₀₀ = 0 dBC₁₀₀₋₅₀₀₀ = 0 dBC_{tr, 50-3150} = -4 dBC_{tr, 50-5000} = -4 dBC_{tr, 100-5000} = -4 dB**R_w = 36,7 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.25 / 21

Date: 02.11.2021

Signature: Robert Dybicz