

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

Laboratory measurements of airborne sound insulation of building elements

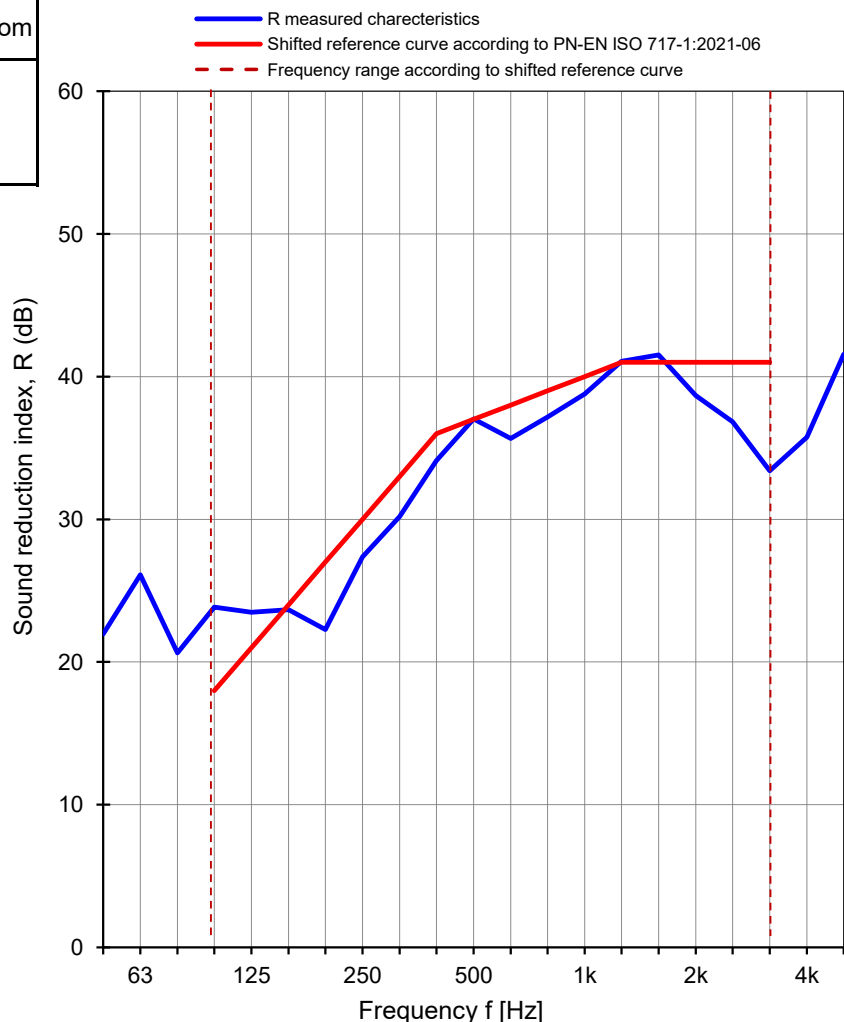
Client: **NorDan Sp. z o.o.**Measurement date: **02.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 10****Construction: TG, ND NTech Villa Topswing reversible****Frame thickness: 92 mm****Glazed by: 6 / 16 Ar / 4**

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]	20,6	21,0
Humidity [%]	54	54
Pressure [hPa]	999	999
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	22,0	2,9
63	26,1	2,4
80	20,6	1,7
100	23,9	3,1
125	23,5	1,7
160	23,7	0,9
200	22,3	1,4
250	27,4	1,4
315	30,2	1,3
400	34,1	0,9
500	37,0	0,8
630	35,7	0,8
800	37,2	0,9
1000	38,8	0,8
1250	41,1	0,8
1600	41,5	0,8
2000	38,7	0,7
2500	36,8	0,9
3150	33,4	1,0
4000	35,8	1,1
5000	41,6	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 717-1:2021-06

R_w (C; C_{tr}) = 37 (-2; -4) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -2 dBC_{tr, 50-3150} = -5 dBC_{tr, 50-5000} = -5 dBC_{tr, 100-5000} = -4 dB**R_w = 37,0 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.26 / 21

Date: 02.11.2021

Signature: Robert Dybicz