

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

Laboratory measurements of airborne sound insulation of building elements

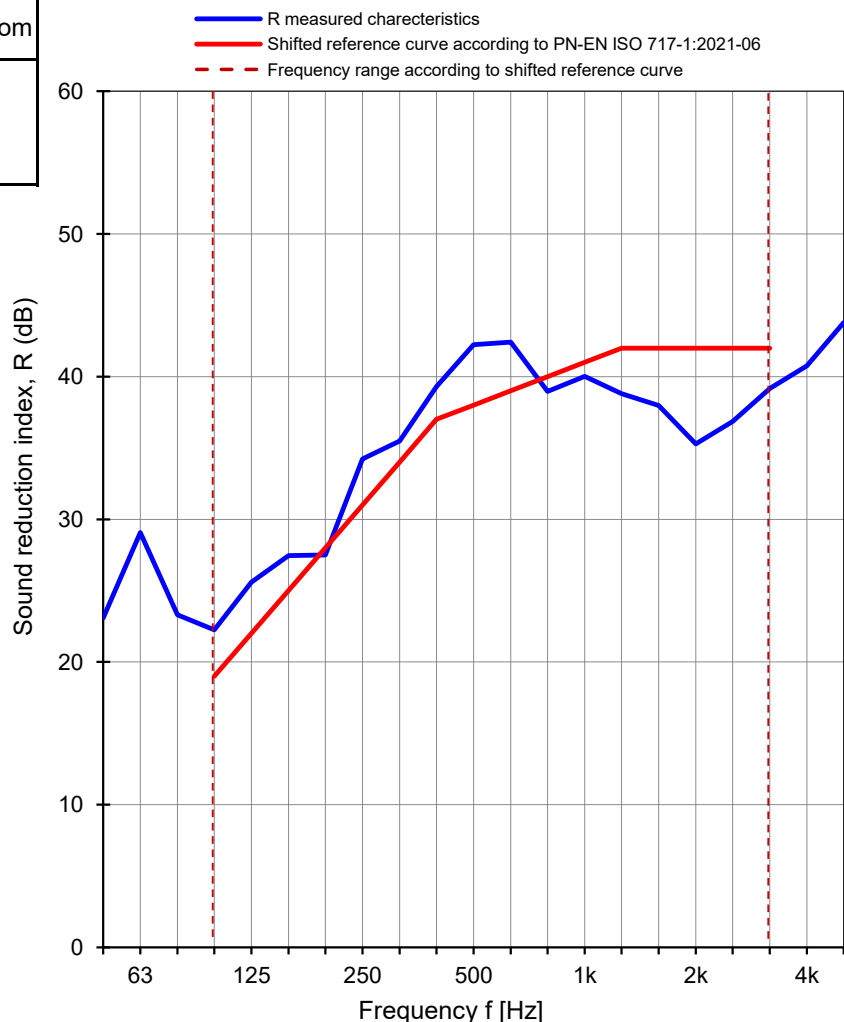
Client: **NorDan Sp. z o.o.**
Address: **Powodowo 54, 64-200 Wolsztyn**Measurement date: **04.11.2021**Test specimen: **Wooden window**
Construction: TG, ND NTech Villa Topswing reversible
Frame thickness: 105 mm
Glazed by: 6 / 20 Ar / 10**Pi LNR: 35**

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]	20,5	20,8
Humidity [%]	57	59
Pressure [hPa]	1000	1000
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	23,1	2,9
63	29,1	1,9
80	23,3	1,9
100	22,3	3,0
125	25,6	1,8
160	27,5	1,4
200	27,5	1,0
250	34,2	1,2
315	35,5	0,9
400	39,3	1,3
500	42,2	1,1
630	42,4	0,9
800	39,0	0,9
1000	40,0	0,8
1250	38,8	0,9
1600	38,0	0,7
2000	35,3	0,7
2500	36,9	0,9
3150	39,2	0,9
4000	40,8	0,9
5000	43,8	1,1

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}) = 38 (-1; -3) dBC₅₀₋₃₁₅₀ = -1 dBC₅₀₋₅₀₀₀ = 0 dBC₁₀₀₋₅₀₀₀ = 0 dBC_{tr, 50-3150} = -4 dBC_{tr, 50-5000} = -4 dBC_{tr, 100-5000} = -3 dB**R_w = 38,9 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.35 / 21

Date: 04.11.2021

Signature: Robert Dybicz