

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: **03.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 20****Construction: TG, ND NTech Villa Topswing reversible****Frame thickness: 105 mm****Glazed by: 6 / 16 Ar / 6**

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

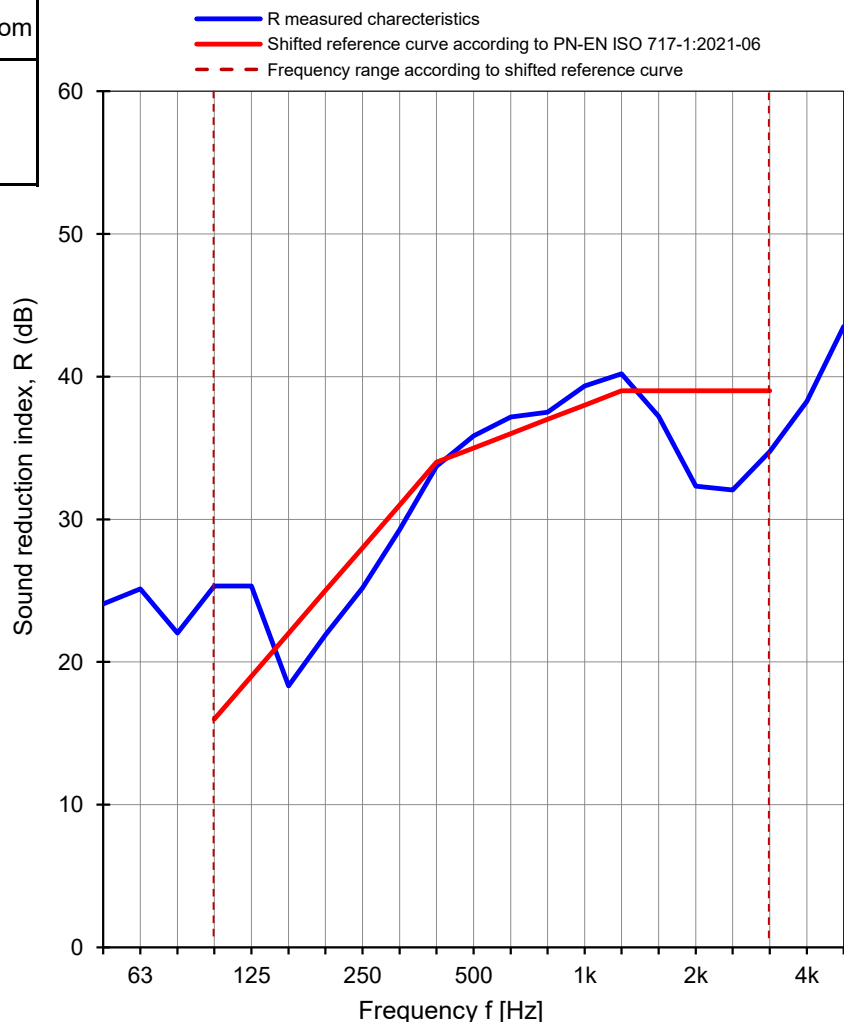
Size of test specimen: **1230 x 1480 mm**

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]	21,0	21,1
Humidity [%]	61	60
Pressure [hPa]	1002	1002
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	24,1	2,9
63	25,1	3,0
80	22,0	1,8
100	25,3	2,7
125	25,3	1,8
160	18,3	1,4
200	21,9	1,0
250	25,2	1,7
315	29,3	1,1
400	33,7	1,1
500	35,8	1,0
630	37,2	1,0
800	37,5	0,7
1000	39,4	0,7
1250	40,2	0,8
1600	37,2	0,8
2000	32,3	0,8
2500	32,1	0,8
3150	34,7	0,9
4000	38,3	1,1
5000	43,5	0,9

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}) = 35 (-2; -4) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -1 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -4 dBC_{tr, 50-5000} = -5 dBC_{tr, 100-5000} = -4 dB**R_w = 35,0 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.28 / 21

Date: 03.11.2021

Signature: Robert Dybicz