

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

Laboratory measurements of airborne sound insulation of building elements

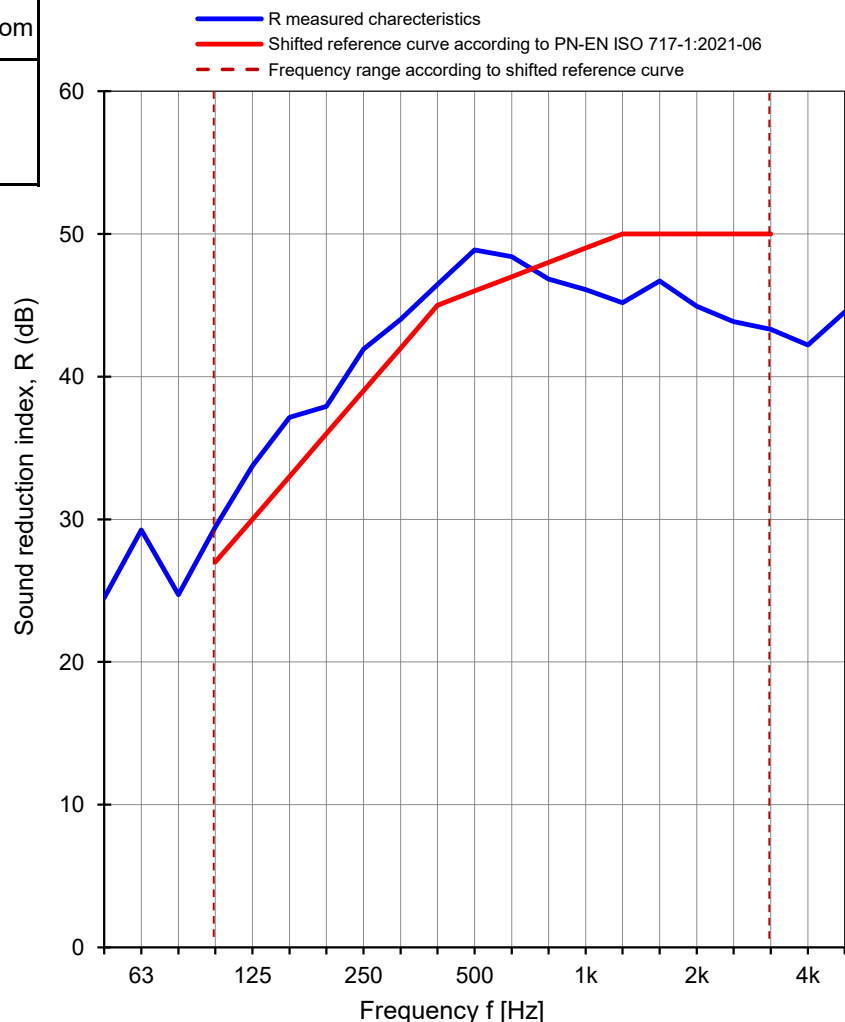
Client: **NorDan Sp. z o.o.**Measurement date: **04.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 30****Construction: TG, ND NTech Villa Topswing reversible****Frame thickness: 105 mm****Glazed by: 64.2 SR Foil / 24 Ar / 68.2 SR Foil**

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 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	21,0	21,1
Humidity [%]	56	57
Pressure [hPa]	998	998
Volume [m <sup>3</sup> ]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	24,5	3,6
63	29,2	1,8
80	24,7	2,1
100	29,5	2,2
125	33,7	1,6
160	37,2	1,2
200	37,9	1,6
250	41,9	1,3
315	44,0	1,0
400	46,4	0,8
500	48,9	0,8
630	48,4	1,1
800	46,8	0,9
1000	46,1	1,0
1250	45,2	0,8
1600	46,7	0,8
2000	44,9	0,8
2500	43,9	0,7
3150	43,3	0,9
4000	42,2	1,0
5000	44,5	1,0

Measurement uncertainty of sound reduction U<sub>CR</sub>

Confidence level 95% at coverage factor, k=2

Weighted sound reduction index in accordance with PN-EN ISO 717-1:2021-06

**R<sub>w</sub> (C; C<sub>tr</sub>) = 46 (-1; -3) dB**C<sub>50-3150</sub> = -2 dBC<sub>50-5000</sub> = -2 dBC<sub>100-5000</sub> = -2 dBC<sub>tr, 50-3150</sub> = -6 dBC<sub>tr, 50-5000</sub> = -6 dBC<sub>tr, 100-5000</sub> = -3 dB**R<sub>w</sub> = 46,2 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.36 / 21

Date: 04.11.2021

Signature: Robert Dybicz