

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

Laboratory measurements of airborne sound insulation of building elements

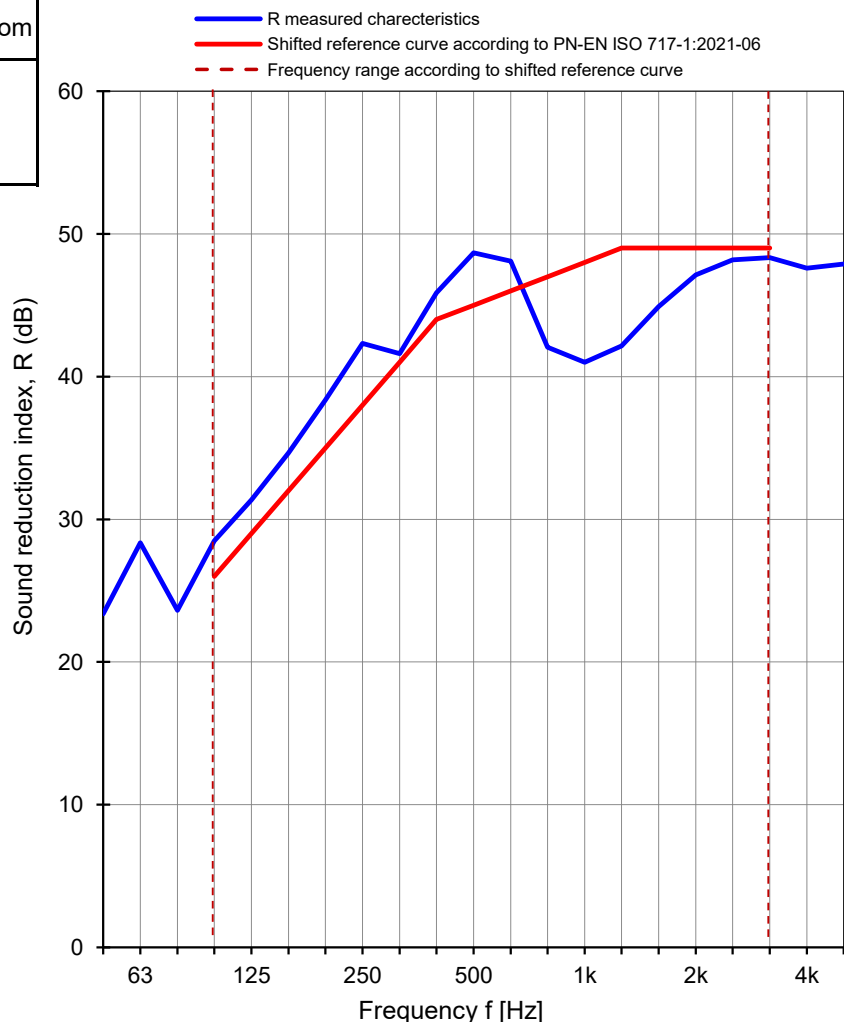
Client: **NorDan Sp. z o.o.**Measurement date: **05.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 105****Construction: OD, ND NTech One Tilt and Turn****Frame thickness: 105 mm****Glazed by: 44.2 SR Foil / 10 Ar / 4 / 14 Ar / 66.4 SR Foil**

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]	21,5	21,4
Humidity [%]	62	63
Pressure [hPa]	1011	1011
Volume [m <sup>3</sup> ]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	23,4	2,4
63	28,3	2,4
80	23,6	2,5
100	28,5	2,4
125	31,4	2,2
160	34,6	1,8
200	38,4	1,2
250	42,3	1,1
315	41,6	1,1
400	45,9	0,7
500	48,7	1,0
630	48,1	0,9
800	42,1	1,0
1000	41,0	0,8
1250	42,1	0,8
1600	44,9	0,8
2000	47,1	0,8
2500	48,2	0,8
3150	48,3	1,1
4000	47,6	1,1
5000	47,9	1,1

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>) = 45 (-1; -4) dB**C<sub>50-3150</sub> = -2 dBC<sub>50-5000</sub> = -1 dBC<sub>100-5000</sub> = -1 dBC<sub>tr, 50-3150</sub> = -6 dBC<sub>tr, 50-5000</sub> = -6 dBC<sub>tr, 100-5000</sub> = -4 dB**R<sub>w</sub> = 45,7 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.43 / 21

Date: 05.11.2021

Signature: Robert Dybicz