

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

Laboratory measurements of airborne sound insulation of building elements

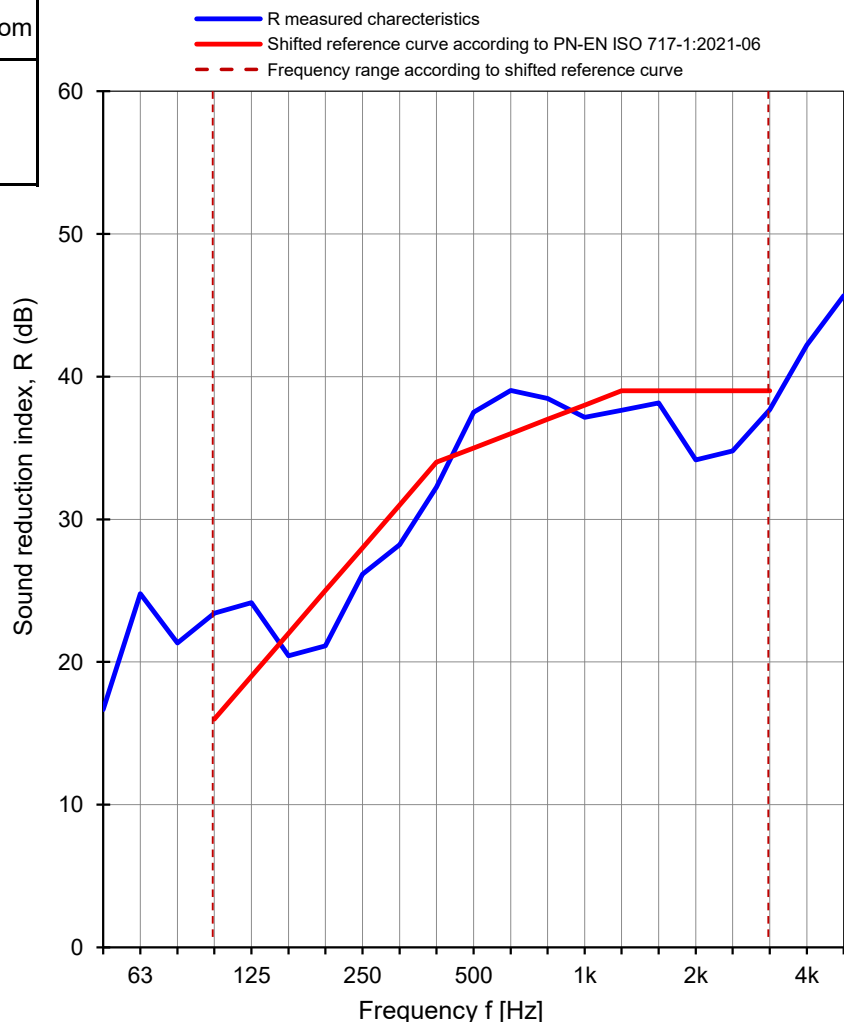
Client: **NorDan Sp. z o.o.**Measurement date: **05.11.2021**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****Pi LNR: 120****Construction: OD, ND NTech One Tilt and Turn****Frame thickness: 105 mm****Glazed by: 33.1 PVB / 16 Ar / 6**

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 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	21,1	20,8
Humidity [%]	57	56
Pressure [hPa]	1014	1014
Volume [m <sup>3</sup> ]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	* 16,7	2,5
63	* 24,8	2,8
80	21,3	2,2
100	23,4	3,0
125	24,2	1,7
160	20,4	1,5
200	21,1	1,9
250	26,2	1,2
315	28,2	1,0
400	32,2	1,1
500	37,5	0,9
630	39,0	0,8
800	38,5	0,9
1000	37,1	0,9
1250	37,6	0,7
1600	38,1	0,7
2000	34,2	0,7
2500	34,8	0,8
3150	37,7	1,1
4000	42,2	1,0
5000	45,7	1,1

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

Confidence level 95% at coverage factor, k=2

\* L<sub>p</sub>-L<sub>pbackground</sub> < 6 dB

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

**R<sub>w</sub> (C; C<sub>tr</sub>) = 35 (-1; -4) dB**C<sub>50-3150</sub> = -1 dBC<sub>50-5000</sub> = 0 dBC<sub>100-5000</sub> = 0 dBC<sub>tr, 50-3150</sub> = -4 dBC<sub>tr, 50-5000</sub> = -5 dBC<sub>tr, 100-5000</sub> = -4 dB**R<sub>w</sub> = 35,6 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.47 / 21

Date: 05.11.2021

Signature: Robert Dybicz