

### 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: **21.09.2021**

Address: **Powodowo 54, 64-200 Wolsztyn**

Test specimen: **Wooden door**

**Pi LNR: 50**

**Construction: TE, ND Ntech Villa Balcony door**

**Glazed by:**

**64.2 PVB / 24 Ar / 6**

**Door frame thickness: 105 mm**

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

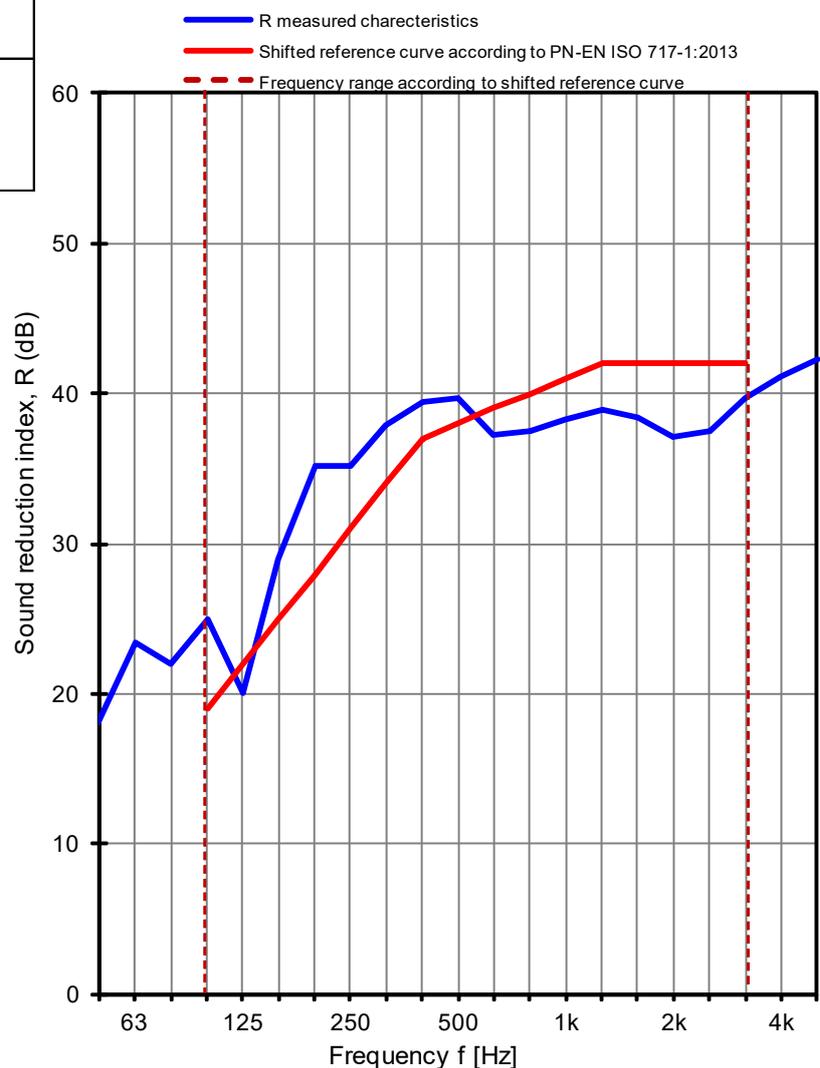
Size of test specimen: **988 x 2088 mm**

Test specimen mounted by: **NorDan Sp. z o.o.**

The surface area of test specimen: **2,15 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	20,4	20,2
Humidity [%]	53	54
Pressure [hPa]	1025	1025
Volume [m <sup>3</sup> ]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	18,1	3,6
63	23,4	3,2
80	22,0	2,4
100	25,0	2,1
125	20,1	1,8
160	29,0	1,3
200	35,1	1,5
250	35,2	1,5
315	37,9	1,0
400	39,4	0,7
500	39,7	1,0
630	37,3	0,8
800	37,6	0,7
1000	38,2	0,8
1250	39,0	0,8
1600	38,4	0,9
2000	37,2	0,8
2500	37,5	0,8
3150	39,7	0,9
4000	41,1	0,9
5000	42,3	1,2



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 717-1:2021-06E

**R<sub>w</sub> (C; C<sub>tr</sub>) = 38 (-1; -3) dB**

C<sub>50-3150</sub> = -1 dB

C<sub>50-5000</sub> = 0 dB

C<sub>100-5000</sub> = 0 dB

C<sub>tr, 50-3150</sub> = -4 dB

C<sub>tr, 50-5000</sub> = -4 dB

C<sub>tr, 100-5000</sub> = -3 dB

**R<sub>w</sub> = 38,5 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.12 / 21

Date: 21.09.2021

Signature: Robert Dybicz

Figure 19. Characteristics of airborne sound insulation of test specimen No. GLA-1559.12 / 21