

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

Measurement date: **30.08.2017**

Test specimen: **Wooden window**
ND N Tech Villa Fixed frame
Glazed IGU: 14,76- 24Ar-10,76

Designation: VSG (FL8/0,76SC/FL6)1B1 / 24 CH.ULT7035 / VSG (TH1,0 6/0,76SC/FL4)kl. 1B1 Ar 49,6

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

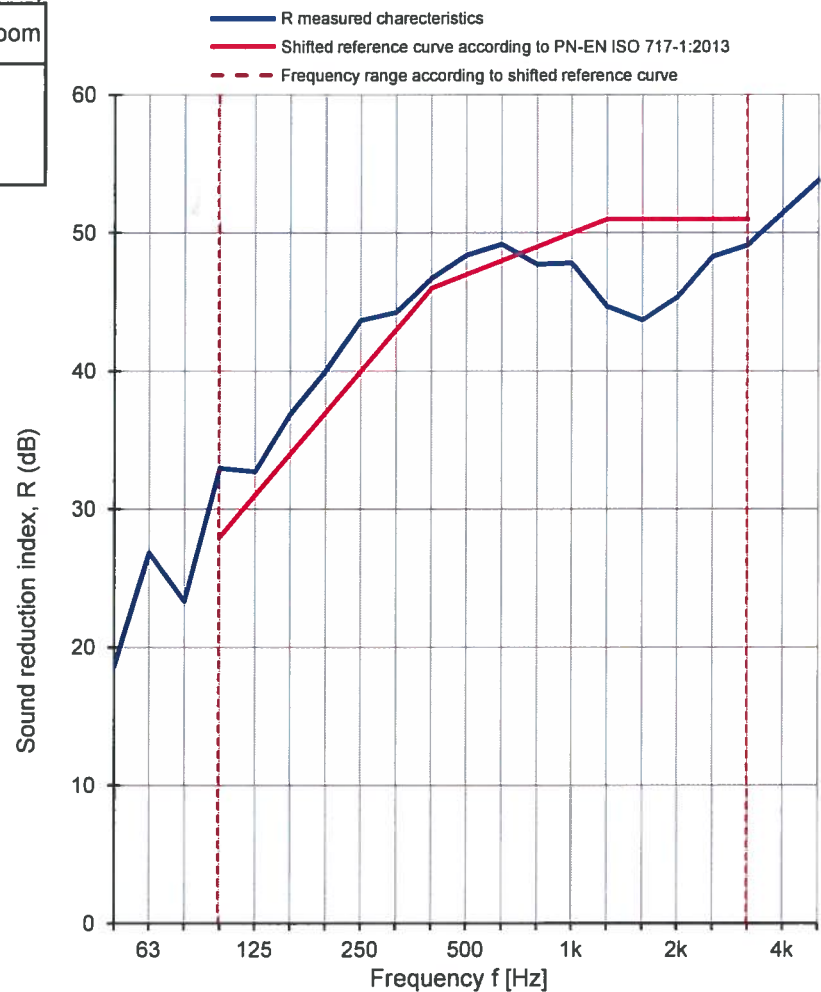
Size of test specimen: **1230 x 1480 mm**Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass: --- kg

The surface area of test specimen: **1,90 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	20,9	20,7
Humidity [%]	66	67
Pressure [hPa]	1011	1011
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	18,6	4,8
63	26,8	3,6
80	23,3	3,3
100	33,0	3,1
125	32,7	2,2
160	36,9	2,6
200	40,0	2,3
250	43,7	2,2
315	44,2	2,2
400	46,7	2,1
500	48,4	2,1
630	49,2	2,0
800	47,7	2,0
1000	47,8	1,9
1250	44,7	1,9
1600	43,7	1,9
2000	45,3	1,9
2500	48,3	1,9
3150	49,1	2,0
4000	51,5	2,0
5000	53,8	2,1

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 717-1:2013

R_w (C; C_{tr}) = 47 (-1; -3) dB

C₅₀₋₃₁₅₀ = -2 dB C₅₀₋₅₀₀₀ = -1 dB C₁₀₀₋₅₀₀₀ = -1 dB
 C_{tr, 50-3150} = -8 dB C_{tr, 50-5000} = -8 dB C_{tr, 100-5000} = -3 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1343.2/17

Date: 30.08.2017

Signature: Krzysztof Mech