

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: **19.06.2019**Address: **Powodowo 54, 64-200 Wolsztyn, Poland**Test specimen: **NorDan inward opening wooden window.****Frame thickness: 105 mm.****Glazing: 66.2sc / 10G / 4 / 14G / 44.2sc (49,6 mm)**

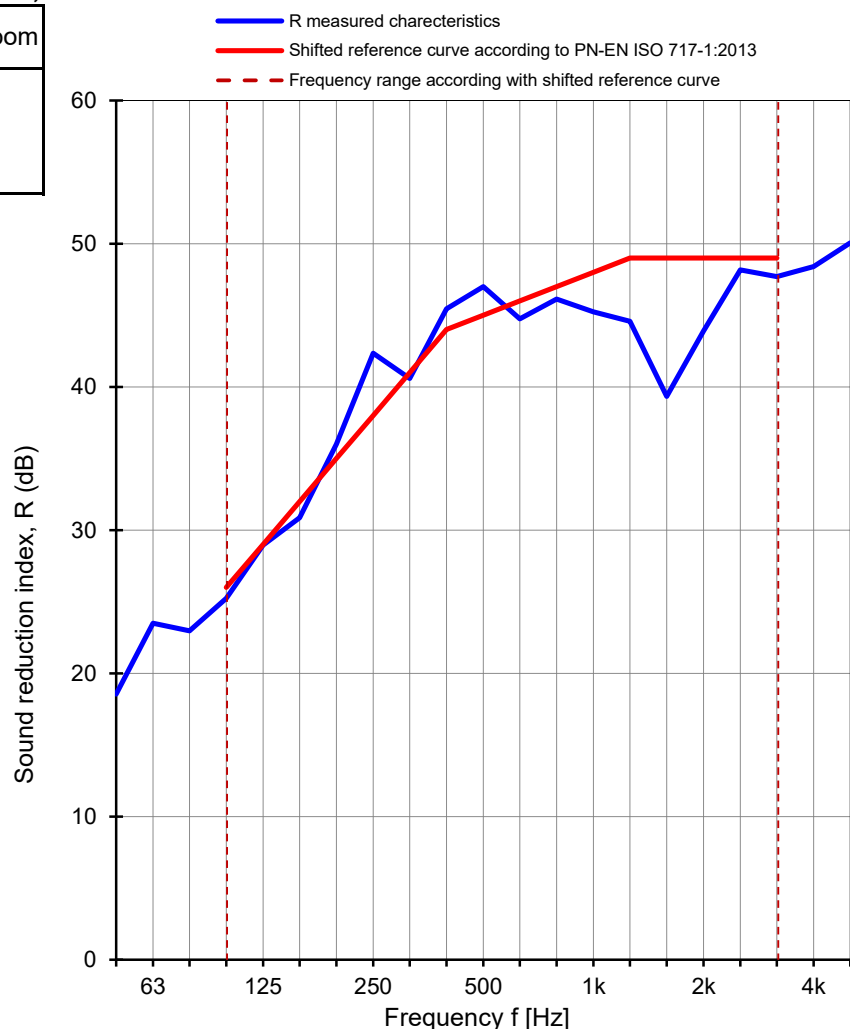
66.2 Silence kl.P2A / 10CH.ULT7035 / FL 4 / 14CH.ULT7035 / 44.2 Silence kl.P2A Ar 49,6

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 per unit area: **kg/m²**The surface area of test specimen: **1,88 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	24,8	23,9
Humidity [%]	60	62
Pressure [hPa]	1011	1011
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	18,5	3,7
63	23,5	3,3
80	23,0	3,4
100	25,2	2,8
125	28,9	2,8
160	30,9	2,6
200	36,0	2,1
250	42,4	2,1
315	40,6	2,3
400	45,5	2,1
500	47,0	2,0
630	44,8	1,9
800	46,1	2,0
1000	45,2	1,9
1250	44,6	2,0
1600	39,3	1,9
2000	43,9	1,9
2500	48,2	1,9
3150	47,7	2,0
4000	48,4	2,1
5000	50,1	2,2

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}) = 45 (-2; -5) dBC₅₀₋₃₁₅₀ = -3 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -8 dBC_{tr, 50-5000} = -8 dBC_{tr, 100-5000} = -5 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1450.11 / 19

Date: 19.06.2019

Signature: Krzysztof Mech