

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

Laboratory measurements of airborne sound insulation of building elements

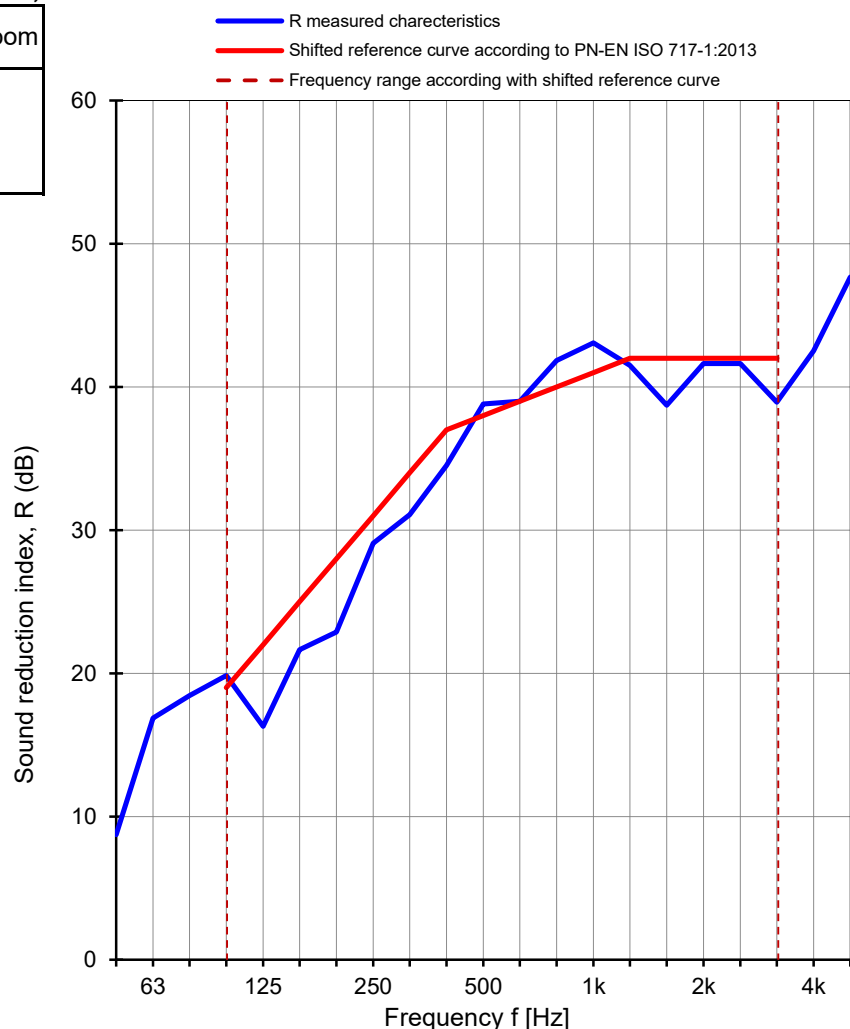
Client: **NorDan Sp. z o.o.**Measurement date: **19.06.2019**Address: **Powodowo 54, 64-200 Wolsztyn, Poland**Test specimen: **NorDan inward opening wooden window.****Frame thickness: 105 mm.****Glazing: 6 / 16G / 4 / 20G / 4 (50 mm)****FL 6 / 16CH.ULT7035 / FL 4 / 20CH.ULT7035 / FL 4 Ar 50**

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	* 8,7	3,2
63	16,9	2,8
80	18,4	4,1
100	19,9	2,6
125	16,3	2,5
160	21,7	2,5
200	22,9	2,4
250	29,1	2,2
315	31,1	2,1
400	34,5	2,0
500	38,8	2,0
630	39,0	2,0
800	41,8	2,0
1000	43,1	1,9
1250	41,5	1,9
1600	38,7	1,9
2000	41,6	1,9
2500	41,6	1,9
3150	38,9	2,0
4000	42,5	2,0
5000	47,7	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}) = 38 (-2; -7) dBC₅₀₋₃₁₅₀ = -3 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -2 dBC_{tr, 50-3150} = -9 dBC_{tr, 50-5000} = -9 dBC_{tr, 100-5000} = -7 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1450.12 / 19

Date: 19.06.2019

Signature: Krzysztof Mech