

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

Laboratory measurements of airborne sound insulation of building elements

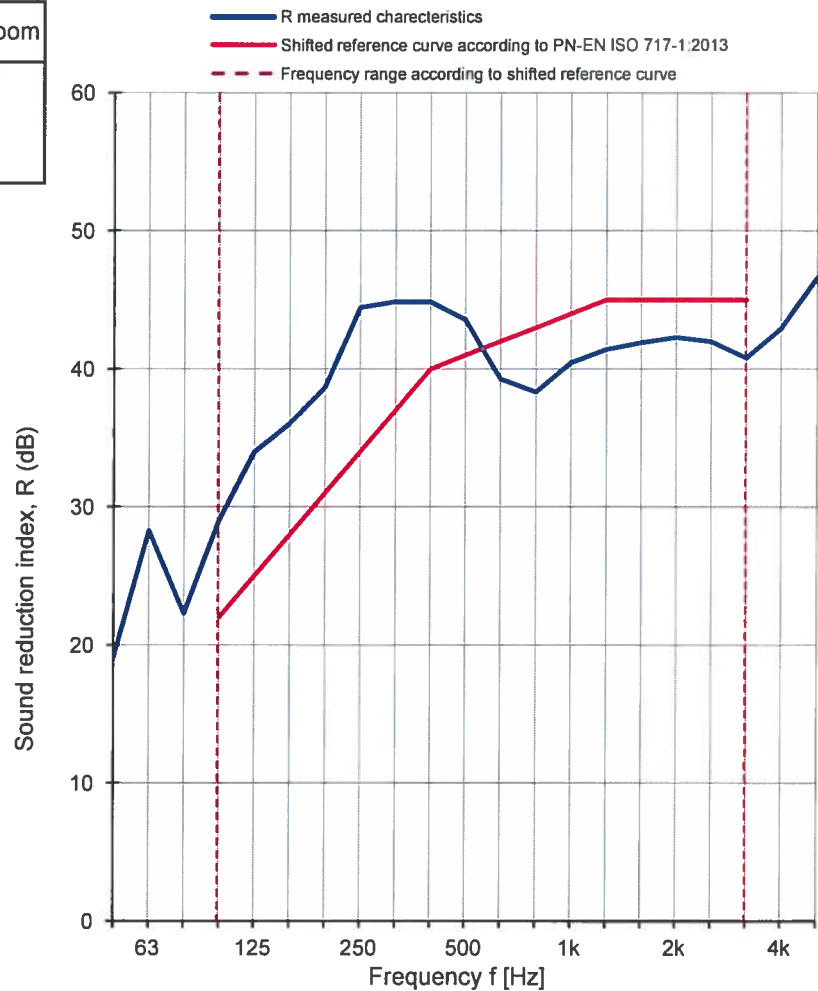
Client: **NorDan Sp. z o.o.**Measurement date: **31.08.2017**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden window****ND N Tech Villa Topswing reversible****Glazed IGU: 14,76 - 24Ar - 10,76****Designation: VSG (FL8/0,76SC/FL6)1B1 / 24 CH.ULT7035 / VSG (TH1,0 6/0,76SC/FL4)kl. 1B1 Ar 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.**Weight: **108 kg**The surface area of test specimen: **1,90 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	21,7	21,8
Humidity [%]	70	70
Pressure [hPa]	1008	1008
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	19,1	3,8
63	28,3	2,8
80	22,3	3,0
100	29,0	2,2
125	34,0	2,4
160	36,0	2,3
200	38,7	2,3
250	44,4	2,1
315	44,9	2,0
400	44,8	2,0
500	43,6	1,9
630	39,3	2,0
800	38,3	1,9
1000	40,4	1,9
1250	41,4	1,9
1600	41,9	2,0
2000	42,3	1,9
2500	42,0	1,9
3150	40,8	1,9
4000	42,9	1,9
5000	46,6	1,9

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}) = 41 (0; -1) dBC₅₀₋₃₁₅₀ = 0 dBC₅₀₋₅₀₀₀ = 0 dBC₁₀₀₋₅₀₀₀ = 0 dBC_{tr, 50-3150} = -4 dBC_{tr, 50-5000} = -4 dBC_{tr, 100-5000} = -1 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1344.4/17

Date: 31.08.2017

Signature: Krzysztof Mech