

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

Laboratory measurements of airborne sound insulation of building elements

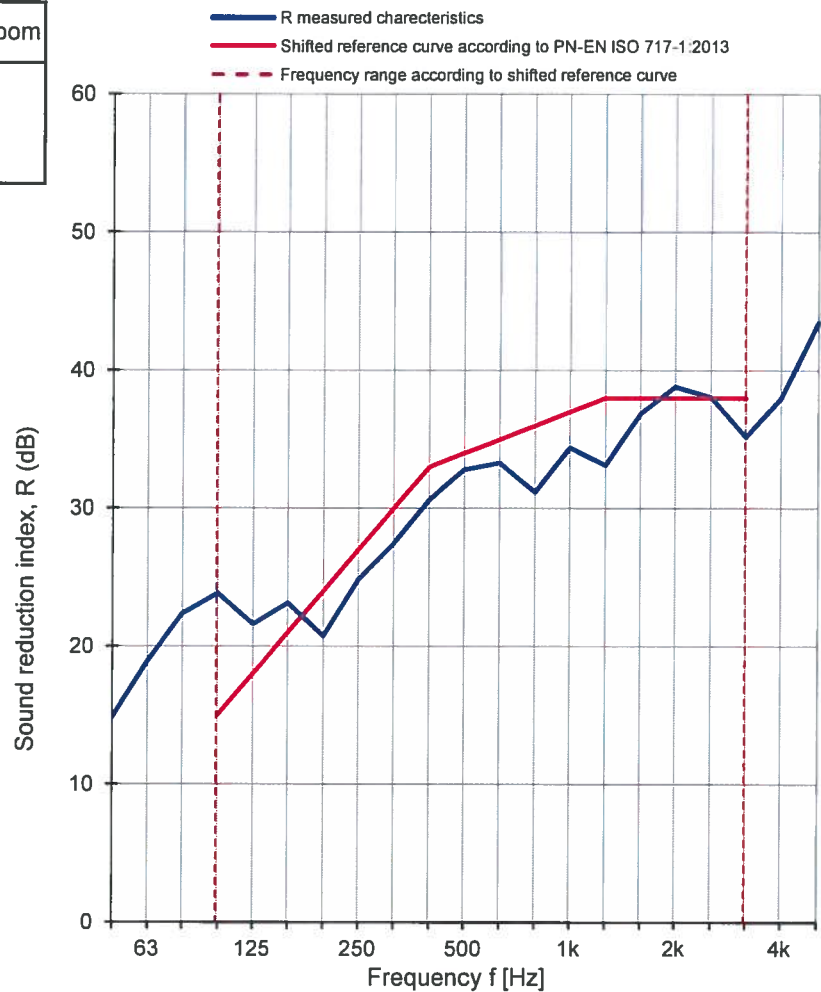
Client: **NorDan Sp. z o.o.**Measurement date: **28.08.2017**Address: **Powodowo 54, 64-200 Wolsztyn**Test specimen: **Wooden Window: casement (tilt and turn)****Glazed IGU: 6 / 16Ar / 4**Designation IGU: **FL 6 / 16 CH.ULT7035 / TH1,0 4 Ar 26**

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 window: **57,19 kg**The surface area of test specimen: **1,90 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	20,6	20,8
Humidity [%]	67	67
Pressure [hPa]	1019	1019
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	14,8	4,4
63	18,9	3,8
80	22,4	3,4
100	23,8	2,3
125	21,6	2,3
160	23,1	2,6
200	20,7	2,2
250	24,8	2,5
315	27,4	2,3
400	30,6	2,1
500	32,8	2,0
630	33,3	2,1
800	31,2	1,9
1000	34,4	1,9
1250	33,1	2,0
1600	36,9	1,9
2000	38,8	1,9
2500	38,1	1,9
3150	35,2	2,0
4000	38,0	1,9
5000	43,5	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}) = 34 (-1; -4) dBC₅₀₋₃₁₅₀ = -1 dBC₅₀₋₅₀₀₀ = -1 dBC₁₀₀₋₅₀₀₀ = 0 dBC_{tr, 50-3150} = -5 dBC_{tr, 50-5000} = -5 dBC_{tr, 100-5000} = -4 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1342.1/17

Date: 28.08.2017

Signature: Krzysztof Mech