

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

Laboratory measurements of airborne sound insulation of building elements

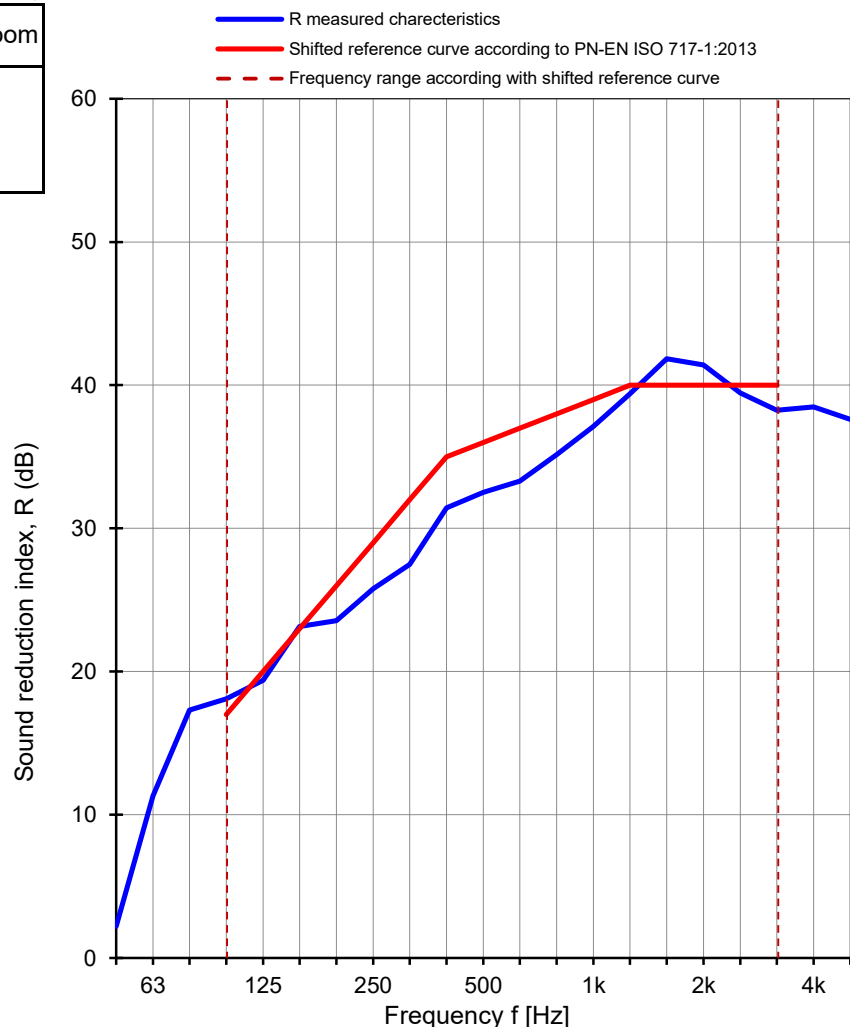
Client: **NorDan Sp. z o.o.**Measurement date: **21.06.2019**Address: **Powodowo 54, 64-200 Wolsztyn, Poland**Test specimen: **ND Villa Ventilator, type 1.****ND Villa Sidehengslet lufttefelt, utforelse 105/80, 105 mm karm**

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

Size of test specimen: **588 x 1588 mm**Test specimen mounted by: **Gryfitlab Sp. z o.o.**Mass per unit area: **kg/m²**The surface area of test specimen: **1,01 m²****Type 1**

Parameter	Receiving room	Source room
Air temp. [°C]	24,8	25,0
Humidity [%]	58	59
Pressure [hPa]	1016	1016
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	2,2	3,5
63	11,3	3,2
80	17,3	3,3
100	18,1	2,7
125	19,4	2,4
160	23,1	2,8
200	23,6	2,3
250	25,8	2,1
315	27,5	2,0
400	31,4	2,1
500	32,5	2,0
630	33,3	2,0
800	35,2	2,0
1000	37,1	1,9
1250	39,4	1,9
1600	41,8	1,9
2000	41,4	1,9
2500	39,5	1,9
3150	38,3	2,0
4000	38,5	2,0
5000	37,6	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}) = 36 (-2; -5) dBC₅₀₋₃₁₅₀ = -3 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -11 dBC_{tr, 50-5000} = -11 dBC_{tr, 100-5000} = -5 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1450.14 / 19

Date: 21.06.2019

Signature: Robert Dybicz