

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

Laboratory measurements of airborne sound insulation of building elements

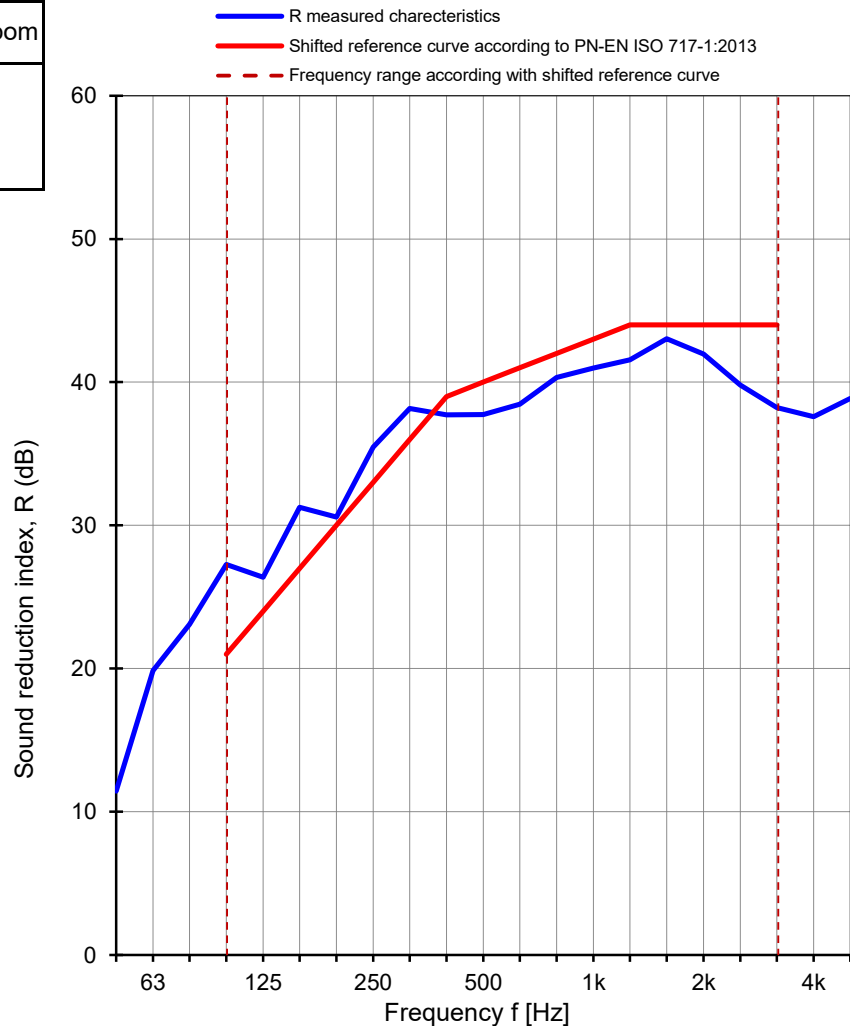
Client: **NorDan Sp. z o.o.**Measurement date: **21.06.2019**Address: **Powodowo 54, 64-200 Wolsztyn, Poland**Test specimen: **ND Villa Ventilator, type 3.****ND Villa Sidehengslet luftfelt, utforelse 105/80, 105 mm karm**

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/m<sup>2</sup>****Type 3**The surface area of test specimen: **1,01 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	25,1	25,2
Humidity [%]	59	59
Pressure [hPa]	1017	1017
Volume [m <sup>3</sup> ]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	11,4	3,0
63	19,9	2,8
80	23,1	3,2
100	27,3	3,0
125	26,4	2,2
160	31,3	2,6
200	30,6	2,3
250	35,5	2,0
315	38,2	2,0
400	37,7	2,1
500	37,7	2,1
630	38,5	2,0
800	40,3	2,0
1000	41,0	1,9
1250	41,6	1,9
1600	43,0	1,9
2000	42,0	1,9
2500	39,8	2,0
3150	38,2	2,0
4000	37,6	1,9
5000	38,9	2,0



Measurement uncertainty of sound reduction U<sub>CR</sub>  
Confidence level 95% at coverage factor, k=2

Weighted sound reduction index in accordance with PN-EN ISO 717-1:2013

**R<sub>w</sub> (C; C<sub>tr</sub>) = 40 (-1; -2) dB**C<sub>50-3150</sub> = -1 dBC<sub>50-5000</sub> = -1 dBC<sub>100-5000</sub> = -1 dBC<sub>tr, 50-3150</sub> = -7 dBC<sub>tr, 50-5000</sub> = -7 dBC<sub>tr, 100-5000</sub> = -3 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1450.16 / 19

Date: 21.06.2019

Signature: Robert Dybicz