

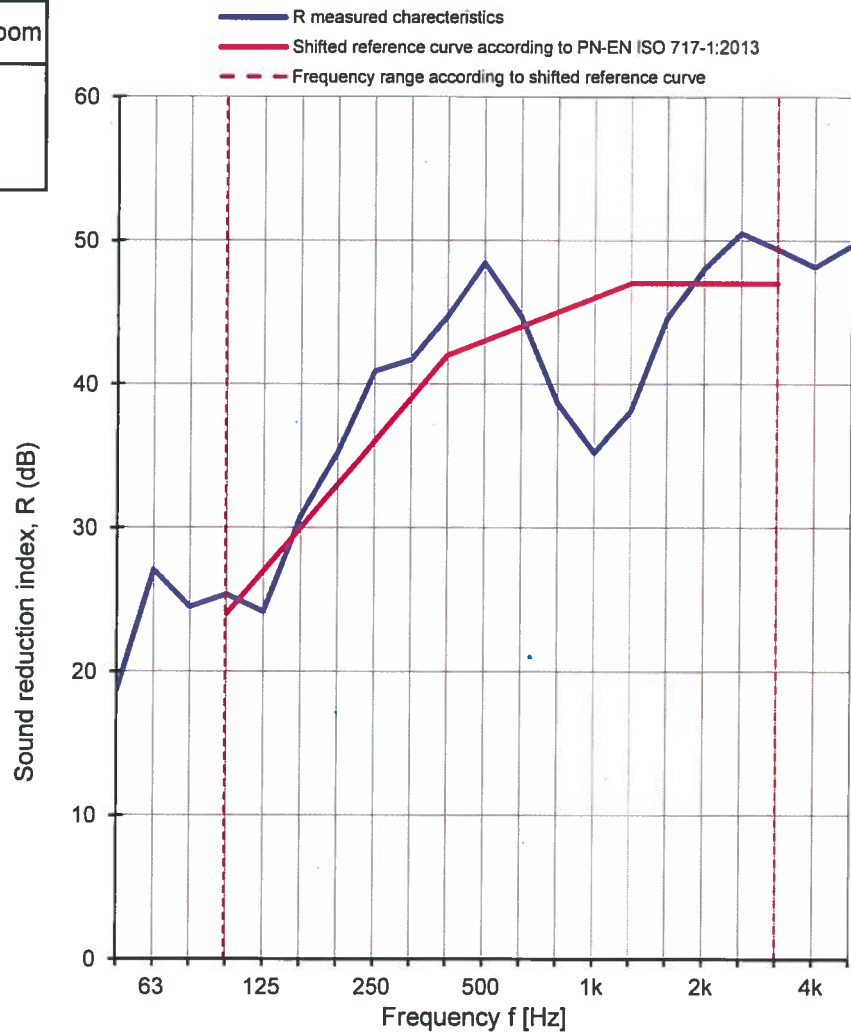
**Sound reduction index in accordance with PN - EN ISO 10140-2 (2011)**

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**Measurement date: **26.04.2018**Address: **Stasjonsveien 46, N-4460 Moi Norway**Test specimen: **Window TEST no. 5****ZD ND Ntech One 105/80 mm Wooden window, Tilt and turn, frame thickness: 105 mm  
Glazed with glass: 8,76 aku- 10 Ar- 4 - 18 Ar - 8,76 aku**Size of test specimen: **1230 x 1480 mm**Test specimen mounted by: **Gryfitlab Sp. z o.o.**Mass per unit area: **kg/m<sup>2</sup>**The surface area of test specimen: **1,87 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	20,6	21,5
Humidity [%]	60	60
Pressure [hPa]	1009	1009
Volume [m <sup>3</sup> ]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	18,7	3,9
63	27,1	2,4
80	24,5	2,8
100	25,4	2,6
125	24,1	2,4
160	30,8	2,4
200	35,2	2,4
250	40,9	2,0
315	41,7	2,1
400	44,7	2,0
500	48,4	2,0
630	44,7	2,0
800	38,7	2,1
1000	35,2	2,0
1250	38,1	2,0
1600	44,6	2,0
2000	48,0	1,9
2500	50,5	1,9
3150	49,4	1,9
4000	48,1	2,0
5000	49,6	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>) = 43 (-3; -6) dB**C<sub>50-3150</sub> = -3 dBC<sub>50-5000</sub> = -2 dBC<sub>100-5000</sub> = -2 dBC<sub>tr, 50-3150</sub> = -7 dBC<sub>tr, 50-5000</sub> = -7 dBC<sub>tr, 100-5000</sub> = -6 dB**R<sub>w</sub> = 43,2 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1372.19/18

Date: 26.04.2018

Signature: Krzysztof Mech