

**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: **01.02.2017**

Address: **Stasjonsveien 46, N-4460 Mio, Norway**

Test specimen: **Wooden window type TG NTech Villa Topswing Classic 92mm  
Glazed: Sound reduction 2s w/LowE WES/Ar 8,76ES+20G+8,38  
(Test 6.3)**

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

Size of test specimen: **1230 x 1480 mm**

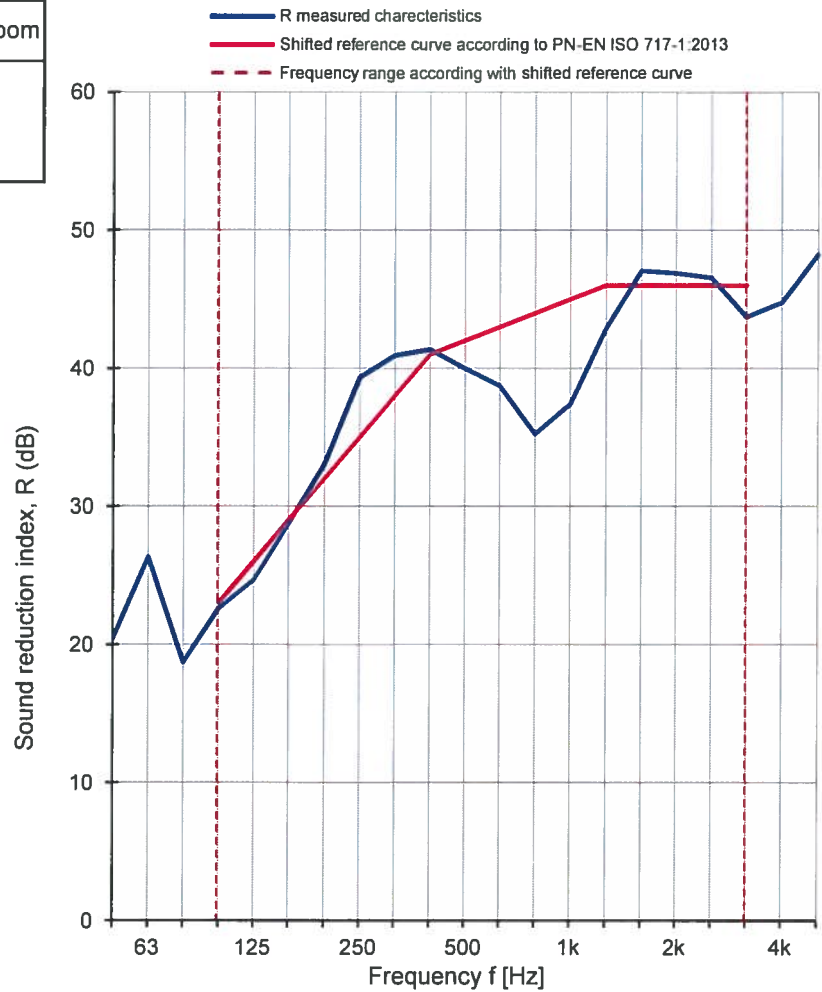
Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m<sup>2</sup>**

The surface area of test specimen: **1,89 m<sup>2</sup>**

Parameter	Receiving room	Source room
Air temp. [°C]	19,8	20,6
Humidity [%]	59	56
Pressure [hPa]	1022	1022
Volume [m <sup>3</sup> ]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U <sub>CR</sub> [dB]
50	20,4	3,6
63	26,3	2,6
80	18,7	2,4
100	22,6	3,3
125	24,7	2,6
160	28,7	2,5
200	33,0	2,0
250	39,3	2,2
315	40,9	2,0
400	41,4	2,0
500	40,0	2,1
630	38,7	2,0
800	35,2	2,0
1000	37,4	1,9
1250	42,9	1,9
1600	47,1	1,9
2000	46,9	1,9
2500	46,5	1,9
3150	43,7	2,0
4000	44,8	1,9
5000	48,2	2,0



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

<b>Weighted sound reduction index in accordance with PN-EN ISO 717-1:2013</b>			
<b>R<sub>w</sub> (C; C<sub>tr</sub>) = 42 (-2; -6) dB</b>	C <sub>50-3150</sub> = -3 dB	C <sub>50-5000</sub> = -2 dB	C <sub>100-5000</sub> = -2 dB
<b>R<sub>w</sub> = 42,2 dB</b>	C <sub>tr, 50-3150</sub> = -8 dB	C <sub>tr, 50-5000</sub> = -8 dB	C <sub>tr, 100-5000</sub> = -6 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics  
No. of test specimen: GLA-1305.8/17  
Date: 01.02.2017

Signature: Robert Dybicz