

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**

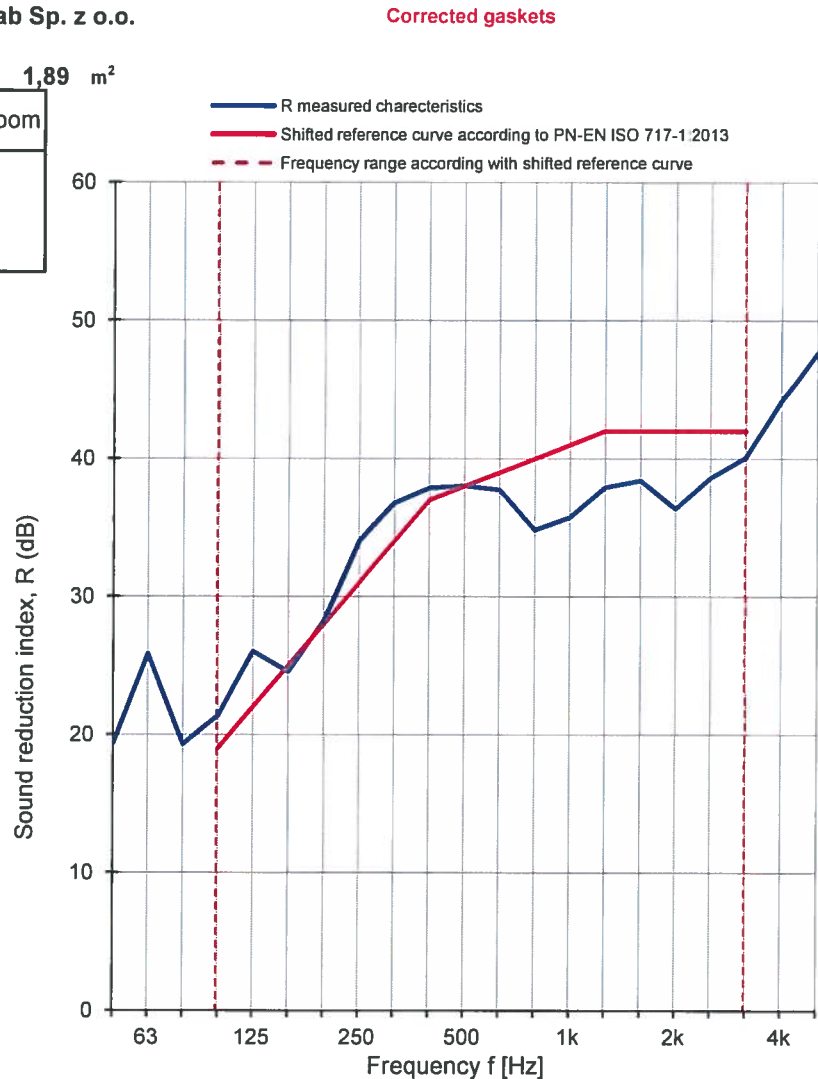
Test specimen: **Wooden window type TG NTech Villa Topswing Classic 92mm**
Glazed: Low E WES/Ar 10+20G+ES6
(Test 6.2)

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/m²**The surface area of test specimen: **1,89 m²**

Parametr	Receiving room	Source room
Air temp. [°C]	20,6	19,8
Humidity [%]	54	57
Pressure [hPa]	1022	1022
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	19,3	3,8
63	25,9	2,7
80	19,3	2,8
100	21,4	3,5
125	26,0	2,3
160	24,6	3,1
200	28,2	2,0
250	34,0	2,3
315	36,8	2,1
400	37,9	1,9
500	38,0	2,0
630	37,7	2,0
800	34,8	1,9
1000	35,7	1,9
1250	37,9	1,9
1600	38,4	1,9
2000	36,4	1,9
2500	38,6	1,9
3150	40,1	2,0
4000	44,2	1,9
5000	47,6	2,0

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}) = 38 (-2; -4) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -1 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -5 dBC_{tr, 50-5000} = -5 dBC_{tr, 100-5000} = -4 dB**R_w = 38,1 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1305.7/17

Date: 01.02.2017

Signature: Robert Dybicz