

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**

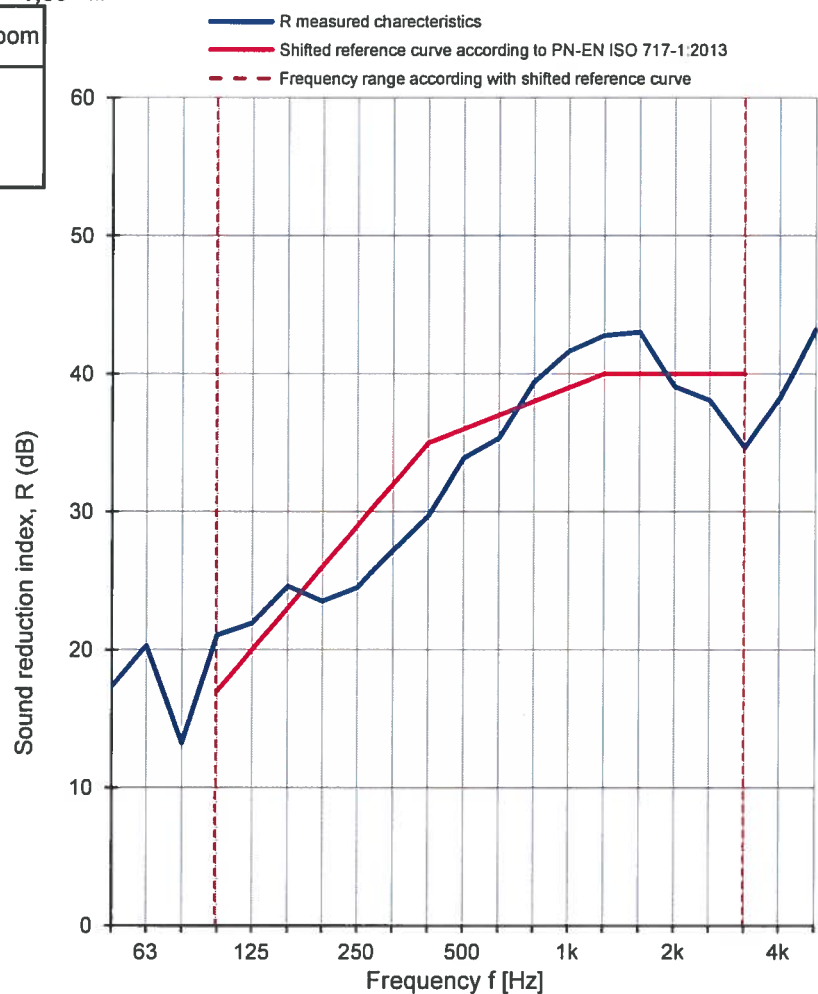
Test specimen: **Wooden window type TL NTech Villa Fixed Frame 92 mm**
Glazed: Low E WES/Ar 6+16G+ES4
(Test 7.1)

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]	20,8	20,5
Humidity [%]	60	55
Pressure [hPa]	1022	1022
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	17,3	3,4
63	20,3	2,6
80	13,2	2,6
100	21,0	3,3
125	21,9	2,5
160	24,6	2,4
200	23,5	2,3
250	24,5	2,1
315	27,2	2,1
400	29,7	2,1
500	33,9	2,0
630	35,3	2,0
800	39,4	2,0
1000	41,6	1,9
1250	42,8	1,9
1600	43,0	1,9
2000	39,1	1,9
2500	38,1	1,9
3150	34,6	1,9
4000	38,2	1,9
5000	43,2	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 (-1; -4) dB	C ₅₀₋₃₁₅₀ = -2 dB	C ₅₀₋₅₀₀₀ = -1 dB	C ₁₀₀₋₅₀₀₀ = -1 dB
R_w = 36,2 dB	C _{tr, 50-3150} = -7 dB	C _{tr, 50-5000} = -7 dB	C _{tr, 100-5000} = -4 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1305.9/17

Date: 01.02.2017

Signature: Robert Dybicz