

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

Laboratory measurements of airborne sound insulation of building elements

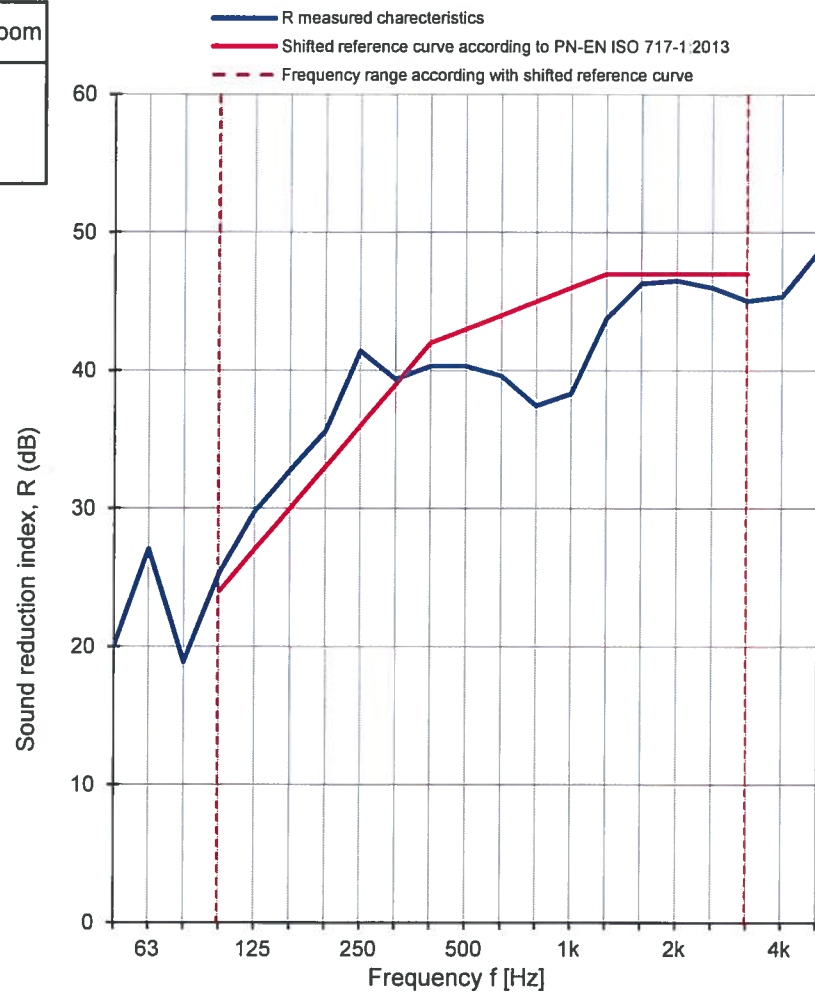
Client: **NorDan AS**Measurement date: **31.01.2017**Address: **Stasjonsveien 46, N-4460 Mio, Norway**Test specimen: **Wooden window type TG NTech Villa Topswing Classic 105/80****Glazed: Sound reduction 44.2 2s w/LowE (LE) WES/Ar 8,76E+10G+4+18G+E8,76
(Test 2.2)**

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]	1014	1014
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	20,0	3,3
63	27,1	2,6
80	18,9	2,4
100	25,3	3,1
125	29,7	2,7
160	32,7	2,5
200	35,6	2,1
250	41,4	2,2
315	39,3	2,0
400	40,3	2,0
500	40,3	2,0
630	39,6	2,0
800	37,4	2,0
1000	38,3	1,9
1250	43,8	1,9
1600	46,3	1,9
2000	46,5	1,9
2500	46,0	1,9
3150	45,0	2,0
4000	45,3	2,0
5000	48,5	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}) = 43 (-2; -4) dBC₅₀₋₃₁₅₀ = -2 dBC₅₀₋₅₀₀₀ = -2 dBC₁₀₀₋₅₀₀₀ = -1 dBC_{tr, 50-3150} = -8 dBC_{tr, 50-5000} = -8 dBC_{tr, 100-5000} = -4 dB**R_w = 43,0 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1305.5/17

Date: 31.01.2017

Signature: Robert Dybicz