

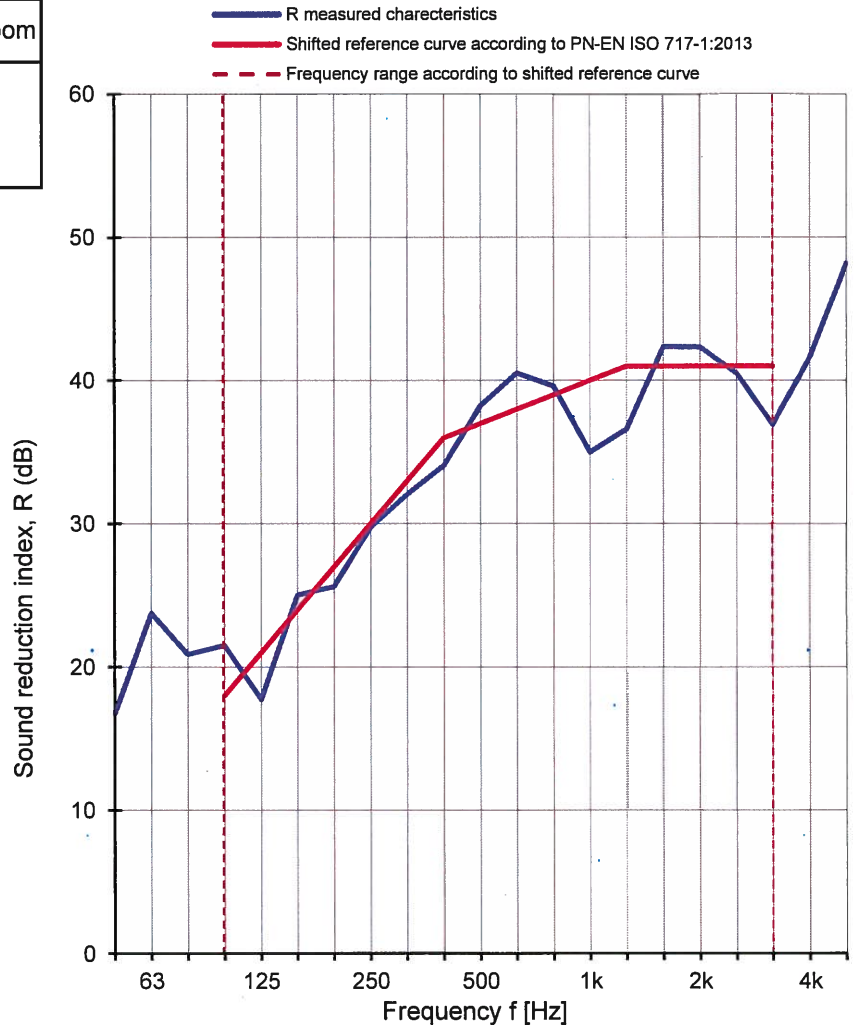
Sound reduction index in accordance with PN - EN ISO 10140-2 (2011)

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. 1**
Wooden window, system Tilt and Turn, frame thickness: 105 mm
Glazed with glass: TH1,1 6 / 16 CH.ULT7035 / FL 4 / 20 CH.ULT7035 / 4 TH 1,1
In the frame was changed foam gasket to silicone gasket
 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: **1,87 m²**

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

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	16,7	4,3
63	23,7	3,2
80	20,9	3,1
100	21,5	2,9
125	17,7	2,5
160	25,0	2,5
200	25,6	2,4
250	29,8	2,3
315	32,1	2,0
400	34,1	2,0
500	38,2	1,9
630	40,5	2,0
800	39,6	2,1
1000	35,0	1,9
1250	36,6	1,9
1600	42,4	2,0
2000	42,3	1,9
2500	40,5	1,9
3150	36,9	1,9
4000	41,6	1,9
5000	48,2	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; -6) dB C₅₀₋₃₁₅₀ = -2 dB C₅₀₋₅₀₀₀ = -1 dB C₁₀₀₋₅₀₀₀ = -1 dB
 C_{tr, 50-3150} = -7 dB C_{tr, 50-5000} = -7 dB C_{tr, 100-5000} = -6 dB
R_w = 38,0 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
 No. of test specimen: GLA-1372.17/18
 Date: 26.04.2018

Signature: Krzysztof Mech