

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

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**

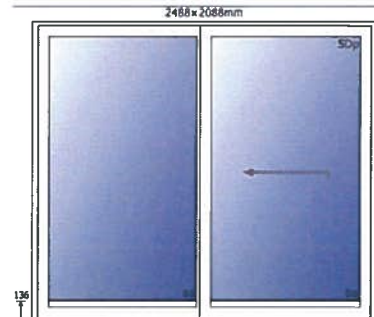
Measurement date: **28.02.2017**

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

Test specimen: **Wooden Patio Door SD NTech 164 mm**

**Glazed: Sound reduction 44.2 w/LowE(LE) 2s WES/Ar
6E+12G+4+18G+E8,76**

(Test 5.6)



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

Size of test specimen: **2488 x 2088 mm**

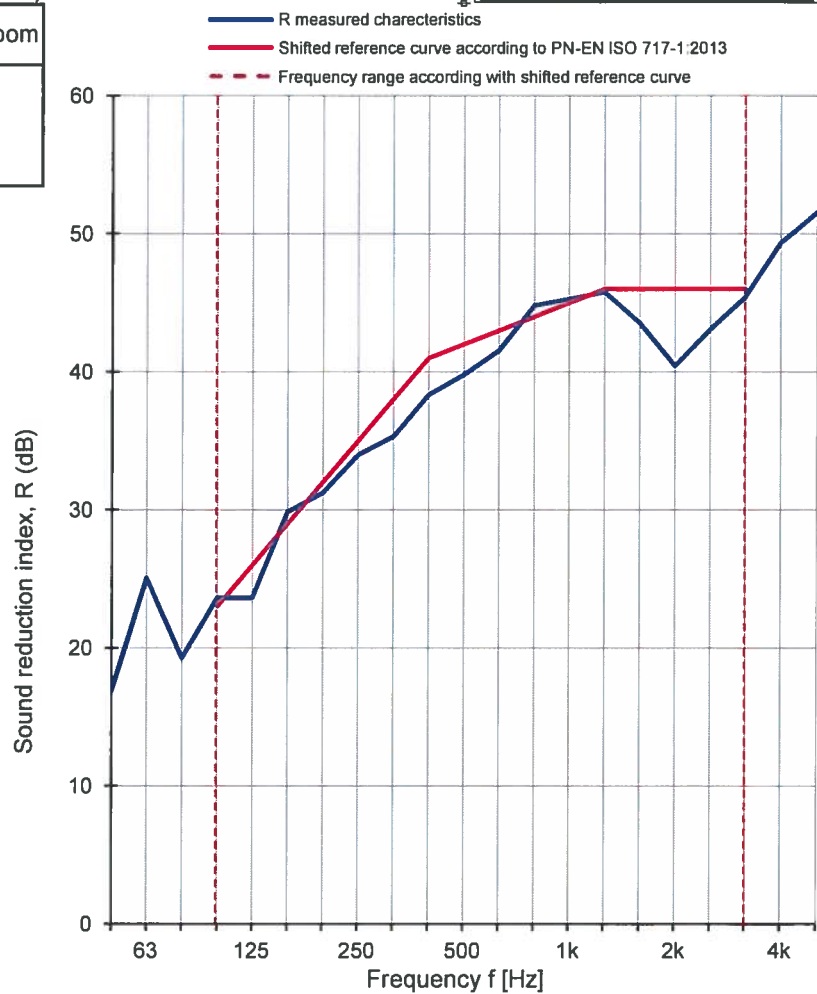
Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m²**

The surface area of test specimen: **5,32 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	19,3	19,7
Humidity [%]	64	65
Pressure [hPa]	990	990
Volume [m ³]	372	324

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	16,9	4,3
63	25,1	3,5
80	19,2	2,5
100	23,6	2,2
125	23,6	2,3
160	29,9	2,2
200	31,2	2,2
250	34,0	2,1
315	35,3	2,2
400	38,3	2,0
500	39,8	2,0
630	41,5	2,0
800	44,8	1,9
1000	45,3	1,9
1250	45,8	1,9
1600	43,5	2,0
2000	40,4	2,0
2500	43,1	1,9
3150	45,4	1,9
4000	49,4	2,0
5000	51,5	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}) = 42 (-1; -5) dB	C ₅₀₋₃₁₅₀ = -2 dB	C ₅₀₋₅₀₀₀ = -1 dB	C ₁₀₀₋₅₀₀₀ = -1 dB
R_w = 42,5 dB	C _{tr, 50-3150} = -8 dB	C _{tr, 50-5000} = -8 dB	C _{tr, 100-5000} = -5 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
 No. of test specimen: GLA-1305.15/17
 Date: 28.02.2017

Signature: Robert Dybicz