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

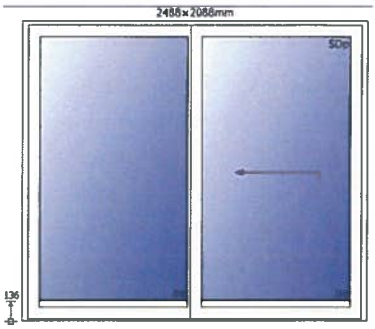
Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**

Measurement date: **28.02.2017**

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

Test specimen: **Wooden Patio Door SD NTech 164mm**
Glazed: Sound reduction 44.2 2s w/LowE (LE) WES/Ar
8,76E+10G+4+18G+E8,76
(Test 5.5)

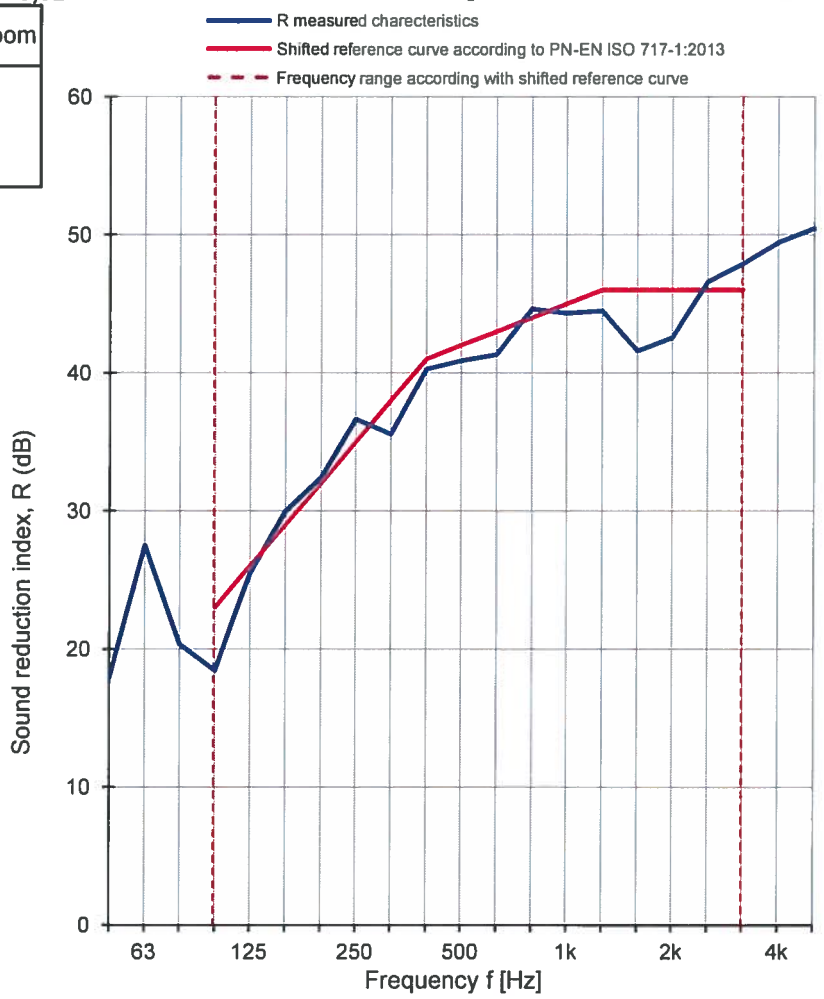


Description of the test facility, test specimen and test arrangement:
Size of test specimen: **2488 x 2088 mm**
Test specimen mounted by: **Gryfitlab Sp. z o.o.**
Mass per unit area: kg/m²
The surface area of test specimen: **5,32 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	19,3	19,7
Humidity [%]	64	65
Pressure [hPa]	990	990
Volume [m³]	372	324

Frequency [Hz]	Test results with uncertainty R [dB]	U_{CR} [dB]
50	17,9	3,8
63	27,5	3,2
80	20,3	3,1
100	18,4	3,4
125	25,5	2,5
160	30,0	2,4
200	32,4	2,3
250	36,6	2,1
315	35,6	2,0
400	40,3	2,1
500	40,9	2,1
630	41,3	2,0
800	44,6	1,9
1000	44,3	1,9
1250	44,5	2,0
1600	41,6	1,9
2000	42,6	1,9
2500	46,6	1,9
3150	47,9	1,9
4000	49,4	2,0
5000	50,5	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})= 42 (-1; -6) dB

$C_{50\text{-}3150}$= -2 dB $C_{50\text{-}5000}$= -1 dB $C_{100\text{-}5000}$= 0 dB

$C_{tr,\ 50\text{-}3150}$= -8 dB $C_{tr,\ 50\text{-}5000}$= -8 dB $C_{tr,\ 100\text{-}5000}$= -6 dB

R_w = 42,9 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
No. of test specimen: GLA-1305.14/17
Date: 28.02.2017
Signature: Robert Dybicz