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

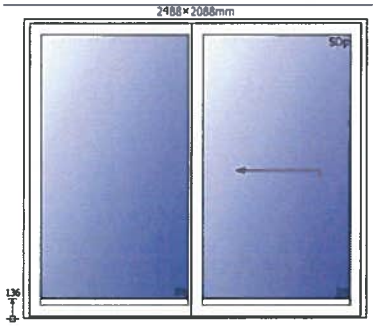
Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**

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

Measurement date: **27.02.2017**

Test specimen: **Wooden Patio Door SD NTech 164mm**
**Glazed: Støystopp 2s m/Energi VKS/Ar**
**8,76ES+20G+8,38**
**(Test 5.3)**

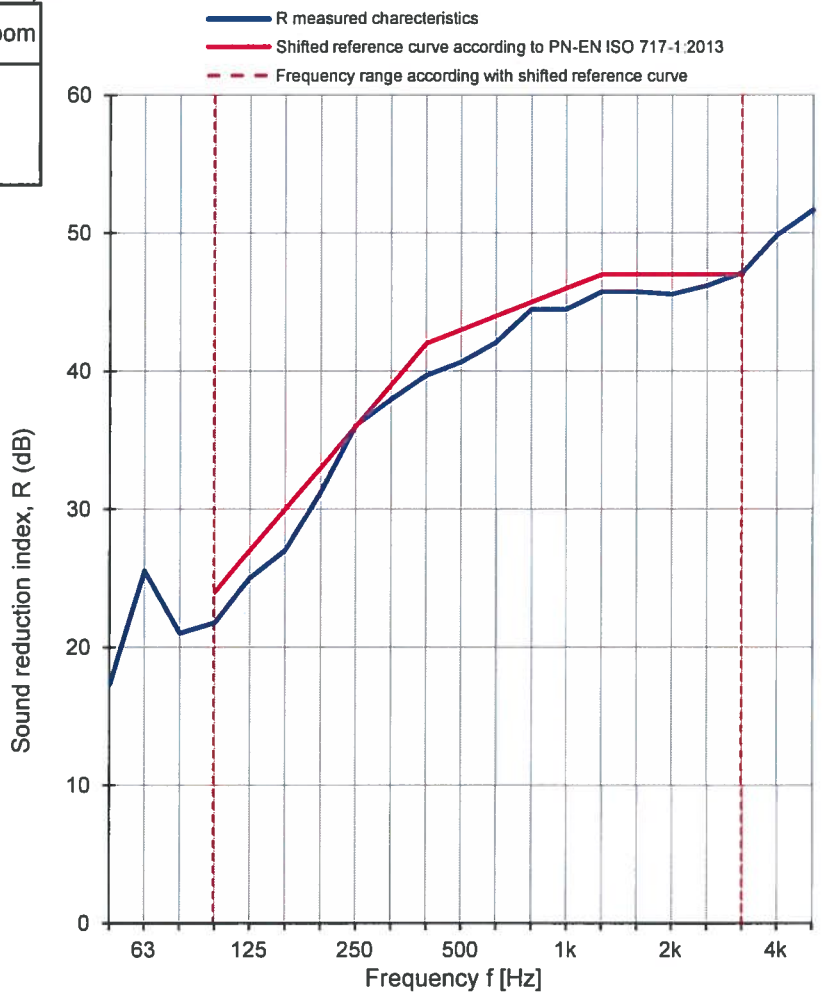



Description of the test facility, test specimen and test arrangement:
Size of test specimen: **2488 x 2088 mm**
Test specimen mounted by: **Gryfitlab Sp. z o.o.**
Mass per unit area: **kg/m²**
The surface area of test specimen: **5,32 m²**

| Parameter | Receiving room | Source room |
|---|---|---|
| Air temp. [°C] | 19,1 | 19,1 |
| Humidity [%] | 66 | 65 |
| Pressure [hPa] | 1004 | 1004 |
| Volume [m³] | 372 | 324 |

| Frequency [Hz] | Test results with uncertainty R [dB] | $U_{CR}$ [dB] |
|---|---|---|
| 50 | 17,3 | 4,2 |
| 63 | 25,5 | 3,1 |
| 80 | 21,0 | 3,0 |
| 100 | 21,7 | 3,2 |
| 125 | 25,0 | 2,2 |
| 160 | 27,0 | 2,5 |
| 200 | 31,2 | 2,0 |
| 250 | 36,1 | 2,2 |
| 315 | 37,9 | 2,0 |
| 400 | 39,7 | 2,0 |
| 500 | 40,6 | 1,9 |
| 630 | 42,1 | 1,9 |
| 800 | 44,5 | 1,9 |
| 1000 | 44,5 | 2,0 |
| 1250 | 45,7 | 1,9 |
| 1600 | 45,7 | 1,9 |
| 2000 | 45,6 | 1,9 |
| 2500 | 46,2 | 1,9 |
| 3150 | 47,1 | 2,0 |
| 4000 | 49,9 | 1,9 |
| 5000 | 51,7 | 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; $C_{tr}$)= 43 (-2; -6) dB**

$C_{50\text{-}3150}$= -2 dB
$C_{tr,\ 50\text{-}3150}$= -8 dB
$C_{50\text{-}5000}$= -1 dB
$C_{tr,\ 50\text{-}5000}$= -8 dB
$C_{100\text{-}5000}$= -1 dB
$C_{tr,\ 100\text{-}5000}$= -6 dB

**$R_w$ = 43,5 dB**

**GRYFITLAB Sp. z o.o. Laboratory of Acoustics**
No. of test specimen: GLA-1305.12/17
Date: 27.02.2017
Signature: Robert Dybicz