

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

Laboratory measurements of airborne sound insulation of building elements

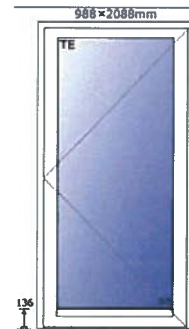
Client: **NorDan AS**

Measurement date: **01.03.2017**

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

Test specimen: **Wooden Balcony Door TE NTech Villa (security) 92 mm**
Glazed: Sound reduction 2s w/LowE WES/Ar
8,76ES+20G+8,38

(Test 4.1)



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

Size of test specimen: **988 x 2088 mm**

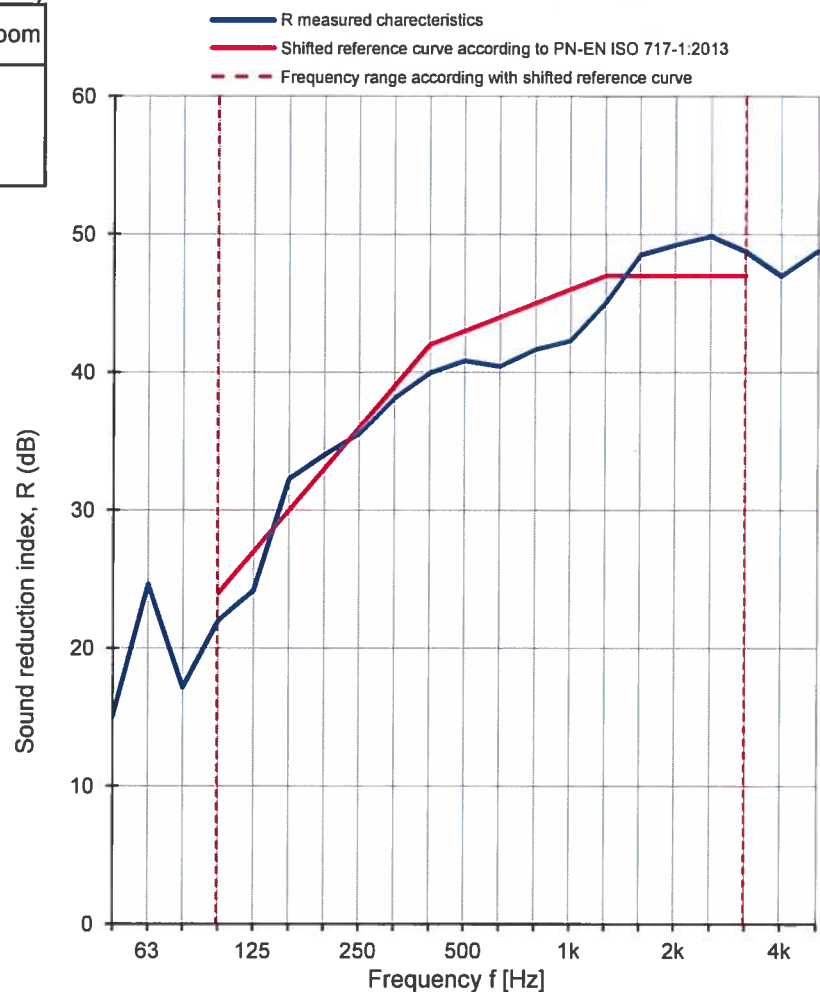
Test specimen mounted by: **Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m²**

The surface area of test specimen: **2,16 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	15,0	4,9
63	24,6	3,5
80	17,1	2,6
100	22,0	2,8
125	24,2	2,4
160	32,3	2,5
200	34,0	2,3
250	35,6	2,2
315	38,1	2,0
400	40,0	2,1
500	40,8	1,9
630	40,4	2,0
800	41,7	2,1
1000	42,3	2,0
1250	45,0	1,9
1600	48,5	1,9
2000	49,2	1,9
2500	49,8	2,0
3150	48,7	2,0
4000	47,0	2,0
5000	48,8	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 (-1; -6) dB

C₅₀₋₃₁₅₀ = -2 dB

C₅₀₋₅₀₀₀ = -1 dB

C₁₀₀₋₅₀₀₀ = 0 dB

C_{tr, 50-3150} = -10 dB

C_{tr, 50-5000} = -10 dB

C_{tr, 100-5000} = -6 dB

R_w = 43,9 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1305.16/17

Date: 01.03.2017

Signature: Robert Dybicz