Sound reduction index in accordance with PN - EN ISO 10140-2:2021-10E

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS** Measurement date: **25.09.2024**

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

Test specimen: **ND NTech Villa double balcony wooden door – TX/BX system**
Outward-opening
One active and one passive leaf, door leaf with movable post.
The same glazing in both door leaf. Glazing:
6,38 / 16 Ar / 4 (PRESSGLASS)

Size of door: **1588 x 2088 x 80 mm** (wide x height x doors leaf frame thickness)

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

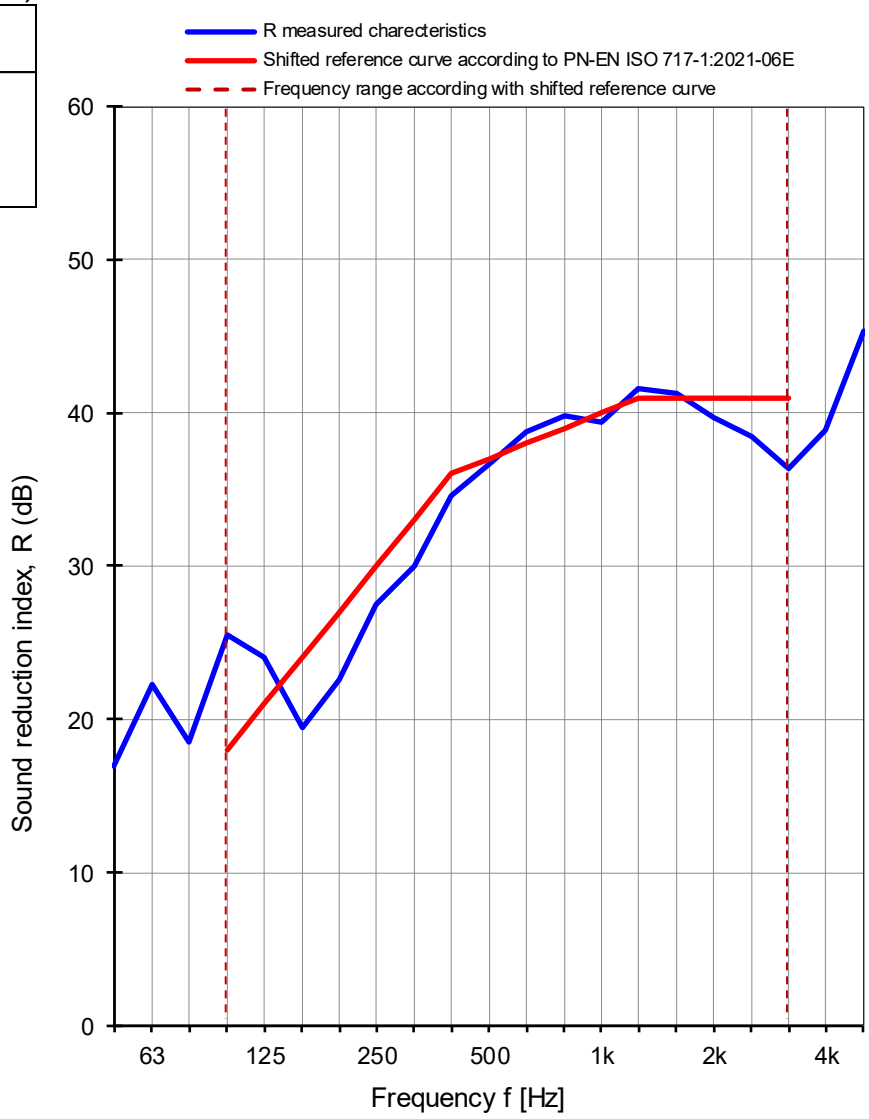
Mass per unit area: **kg/m²**

The surface area of test specimen: **3,42 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	21	20,9
Humidity [%]	59	60
Pressure [hPa]	1004	1004
Volume [m³]	324	372

Frequency [Hz]	Test results with uncertainty R [dB]	U_{CR} [dB]
50	16,9	2,9
63	22,3	3,1
80	18,5	4,2
100	25,5	1,7
125	24,0	1,9
160	19,5	2,3
200	22,5	1,6
250	27,5	1,1
315	30,0	1,2
400	34,6	1,5
500	36,7	1,1
630	38,8	1,1
800	39,8	1,1
1000	39,4	1,0
1250	41,6	1,0
1600	41,3	1,0
2000	39,7	1,0
2500	38,5	1,0
3150	36,3	1,0
4000	38,8	1,1
5000	45,4	1,1

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 717-1:2021-06E

R_w (C; C_{tr})= 37 (-2; -5) dB

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

$C_{tr,\ 50\text{-}3150}$= **-6** dB $C_{tr,\ 50\text{-}5000}$= **-6** dB $C_{tr,\ 100\text{-}5000}$= **-5** dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: **GLA-1676.24 / 24**

Date of analysis: 25.09.2024

R. Dybicz

Elektronicznie podpisany przez Robert Dybicz
Data: 2024.10.28 11:09:18 +01'00'

Signature: Robert Dybicz