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: **24.09.2024**

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:
10,76 Phon / 24 Ar / 14,76 Phon (PRESSGLASS)
64.2 Phon / 24 Ar / 68.2 Phon

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/m^2**

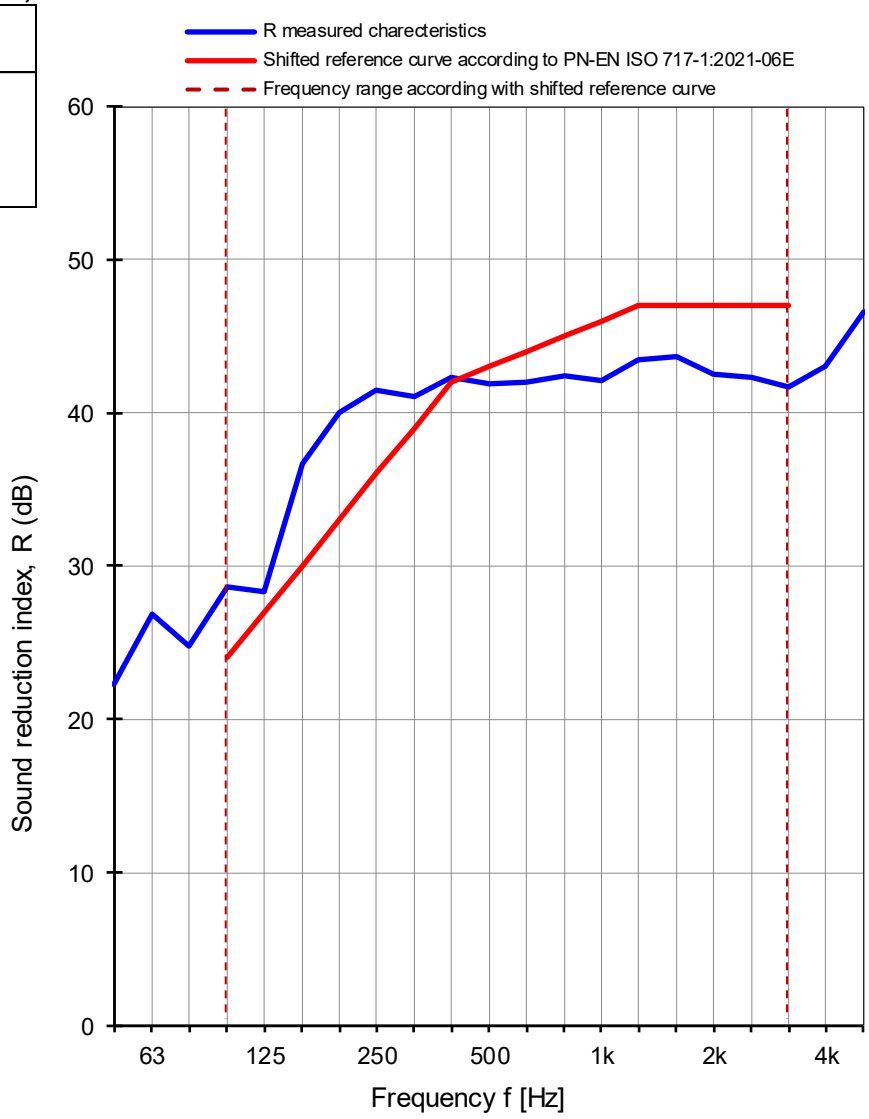
The surface area of test specimen: **3,42 m^2**

Parameter	Receiving room	Source room
Air temp. [°C]	20,7	20,6
Humidity [%]	55	55
Pressure [hPa]	1003	1003
Volume [m^3]	324	372

Frequency [Hz]	Test results with uncertainty R [dB]	U_{CR} [dB]
50	22,3	3,1
63	26,9	2,8
80	24,7	3,6
100	28,6	1,7
125	28,3	1,9
160	36,6	1,4
200	40,1	1,4
250	41,5	1,3
315	41,0	1,3
400	42,3	1,4
500	41,9	1,1
630	42,0	1,1
800	42,4	1,1
1000	42,1	1,0
1250	43,5	1,0
1600	43,7	1,1
2000	42,5	1,0
2500	42,3	1,0
3150	41,7	1,0
4000	43,0	1,1
5000	46,6	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})= 43 (-1; -2) dB

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

$C_{tr,\ 50\text{-}3150}$= **-5** dB $C_{tr,\ 50\text{-}5000}$= **-5** dB $C_{tr,\ 100\text{-}5000}$= **-3** dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: **GLA-1676.19 / 24**

Date of analysis: 24.09.2024

R. Dybicz

Elektronicznie podpisany przez Robert Dybicz
Data: 2024.10.28 11:03:38 +01'00'

Signature: Robert Dybicz