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: **27.08.2024**

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

Test specimen: **NTech Patio door**

Sliding wooden doors, 2P/SD system.

One part is fixed and one is sliding leaf, the same glazing in both.

Glazing:

6,38 / 16 Ar / 4 FL / 16 Ar / 6,38 (PILKINGTON IGP)

Size of door: **2488 x 2088 x 80 mm** (wide x height x doors leaf frame thickness)

Test specimen mounted by: NorDan AS & Gryfitlab Sp. z o.o.

Mass per unit area: kg/m^2

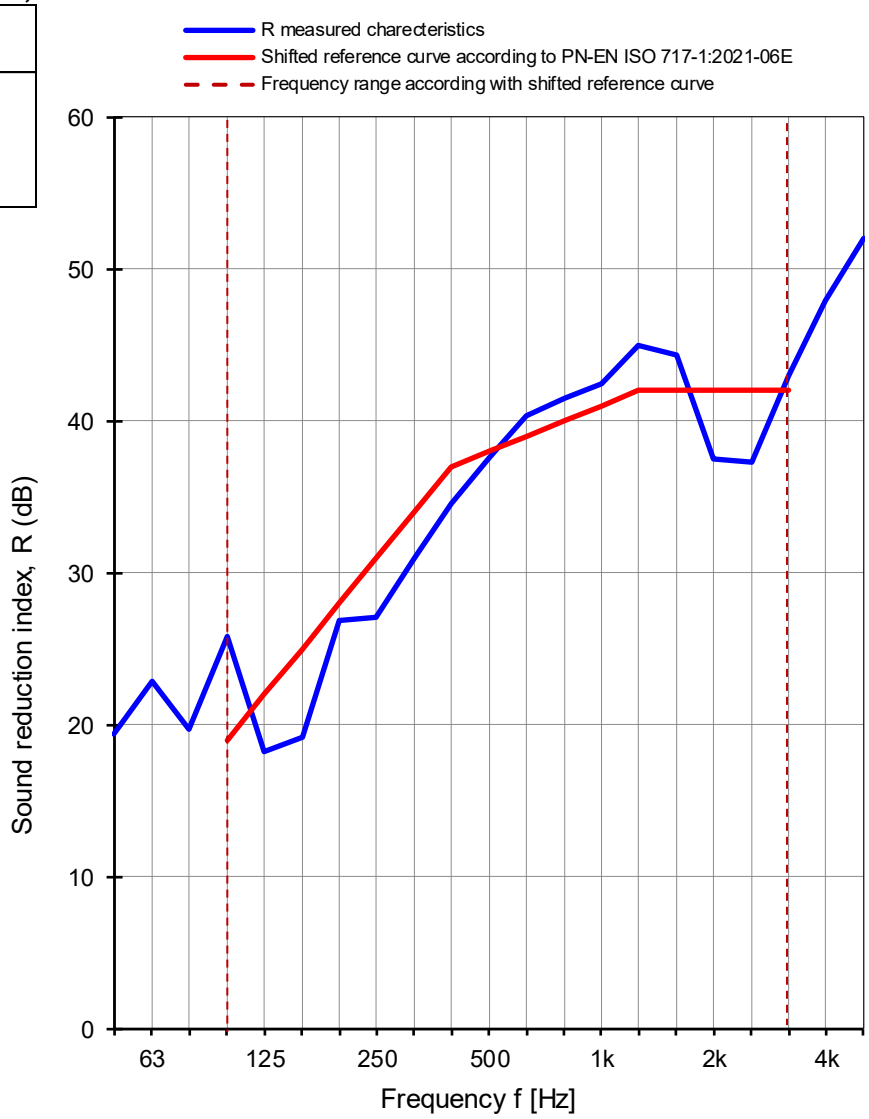
The surface area of test specimen: **5,29** **m^2**

Parameter	Receiving room	Source room
Air temp. [°C]	22,5	22,3
Humidity [%]	56	55
Pressure [hPa]	1024	1024
Volume [m^3]	324	372

Frequency [Hz]	Test results with uncertainty R [dB]	U_{CR} [dB]
50	19,4	2,3
63	22,8	3,0
80	19,7	3,1
100	25,8	2,3
125	18,2	1,8
160	19,2	1,8
200	26,9	1,7
250	27,1	1,3
315	31,0	1,1
400	34,6	1,3
500	37,6	1,2
630	40,3	1,2
800	41,5	1,0
1000	42,4	1,0
1250	45,0	1,0
1600	44,4	1,0
2000	37,5	1,0
2500	37,3	1,1
3150	42,9	1,0
4000	47,9	1,0
5000	52,1	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})= 38 (-2; -6) dB

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

$C_{tr,\ 50\text{-}3150}$= -7 dB $C_{tr,\ 50\text{-}5000}$= -7 dB $C_{tr,\ 100\text{-}5000}$= -6 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: **GLA-1676.5 / 24**

Date of analysis: 27.08.2024

R. Dybicz

Elektronicznie podpisany przez Robert Dybicz
Data: 2024.10.28 10:41:36 +01'00'

Signature: Robert Dybicz