

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

Measurement date: **27.08.2024**

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:
8,76 Phon / 10 Ar / 4 FL / 18 Ar / 8,76 Phon (PILKINGTON IGP)

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

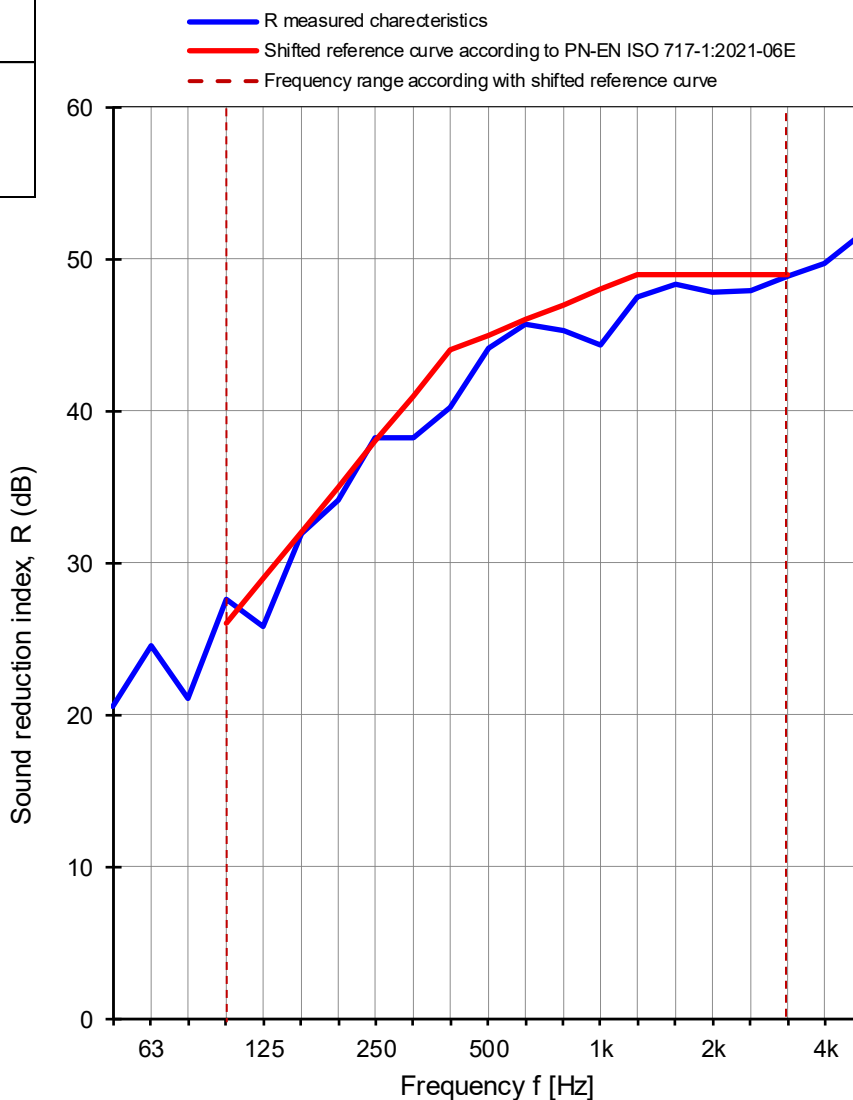
Test specimen mounted by: **NorDan AS & Gryfitlab Sp. z o.o.**

Mass per unit area: **kg/m²**

The surface area of test specimen: **5,29 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	22,5	22,4
Humidity [%]	54	55
Pressure [hPa]	1025	1025
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	20,6	2,1
63	24,6	3,0
80	21,1	3,2
100	27,6	2,2
125	25,9	1,9
160	31,9	1,4
200	34,2	1,7
250	38,2	1,6
315	38,2	1,0
400	40,2	1,3
500	44,1	1,1
630	45,7	1,2
800	45,3	1,0
1000	44,4	1,0
1250	47,5	1,0
1600	48,4	1,0
2000	47,8	0,9
2500	47,9	0,9
3150	48,9	1,0
4000	49,7	1,0
5000	51,7	1,0



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 717-1:2021-06E			
R_w (C; C_{tr}) = 45 (-1; -5) dB	C ₅₀₋₃₁₅₀ = -2 dB	C ₅₀₋₅₀₀₀ = -1 dB	C ₁₀₀₋₅₀₀₀ = 0 dB
	C _{tr, 50-3150} = -8 dB	C _{tr, 50-5000} = -8 dB	C _{tr, 100-5000} = -5 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
 No. of test specimen: **GLA-1676.6 / 24**
 Date of analysis: 27.08.2024

Signature: Robert Dybicz