

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**
 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 / 12 Ar / FL 4 / 18 Ar / 8,76 Phon (PRESSGLASS)

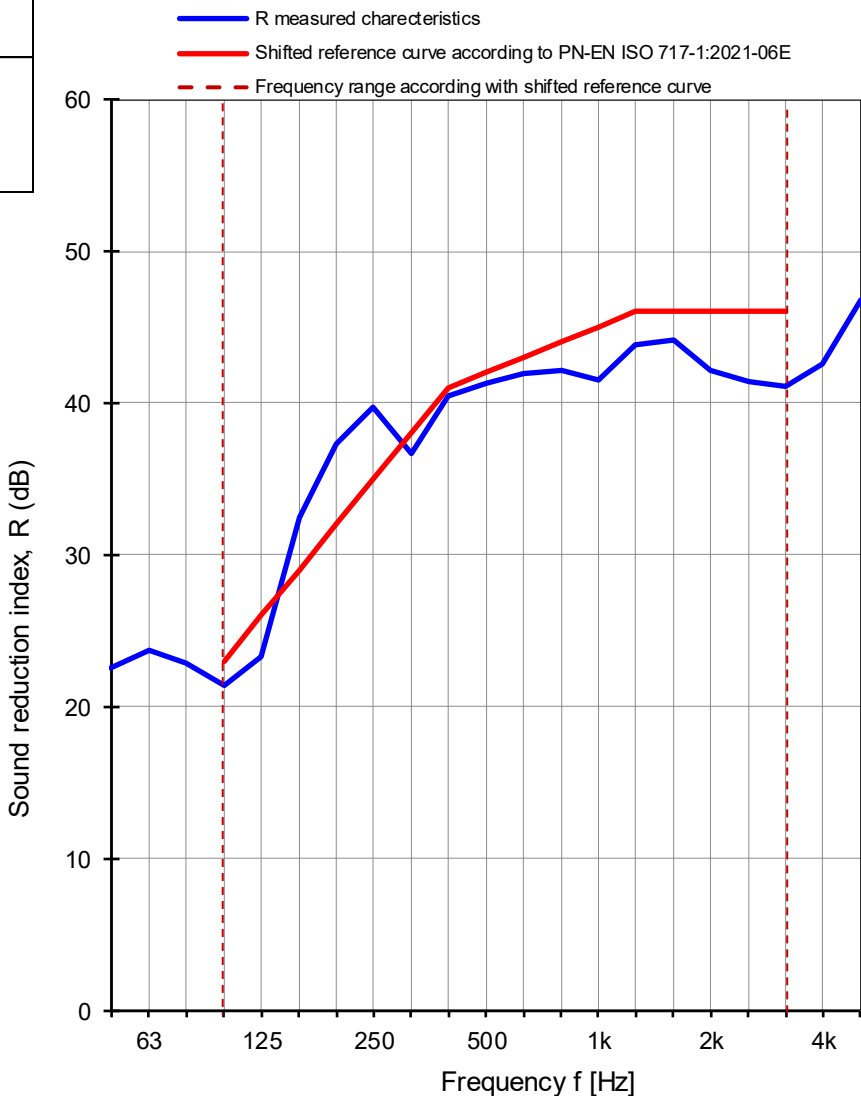
Measurement date: **24.09.2024**

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 [%]	57	56
Pressure [hPa]	1002	1002
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	22,5	2,6
63	23,7	3,3
80	22,9	3,6
100	21,4	1,9
125	23,3	2,4
160	32,5	1,7
200	37,3	1,5
250	39,7	1,3
315	36,7	1,3
400	40,4	1,5
500	41,4	1,0
630	41,9	1,0
800	42,2	1,1
1000	41,5	1,0
1250	43,8	1,0
1600	44,2	1,0
2000	42,1	1,0
2500	41,4	1,0
3150	41,1	0,9
4000	42,5	1,0
5000	46,7	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			
$R_w(C; C_{tr}) = 42 (-2; -5) \text{ dB}$	$C_{50-3150} = -2 \text{ dB}$	$C_{50-5000} = -1 \text{ dB}$	$C_{100-5000} = -1 \text{ dB}$
	$C_{tr, 50-3150} = -6 \text{ dB}$	$C_{tr, 50-5000} = -6 \text{ dB}$	$C_{tr, 100-5000} = -5 \text{ dB}$

GRYFITLAB Sp. z o.o. Laboratory of Acoustics
 No. of test specimen: **GLA-1676.20 / 24**
 Date of analysis: 24.09.2024

Signature: Robert Dybicz