Sound reduction index in accordance with PN - EN ISO 10140-2 (2011)

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan Sp. z o.o.** Measurement date: **03.11.2021**

Address: **Powodowo 54, 64-200 Wolsztyn**

Test specimen: **Wooden window** **Pi LNR: 25**

Construction: TG, ND NTech Villa Topswing reversible

Frame thickness: 105 mm

Glazed by: 6 / 16 Ar / 4

Description of the test facility, test specimen and test arrangement:

Size of test specimen: **1230 x 1480 mm**

Test specimen mounted by: NorDan Sp. z o.o.

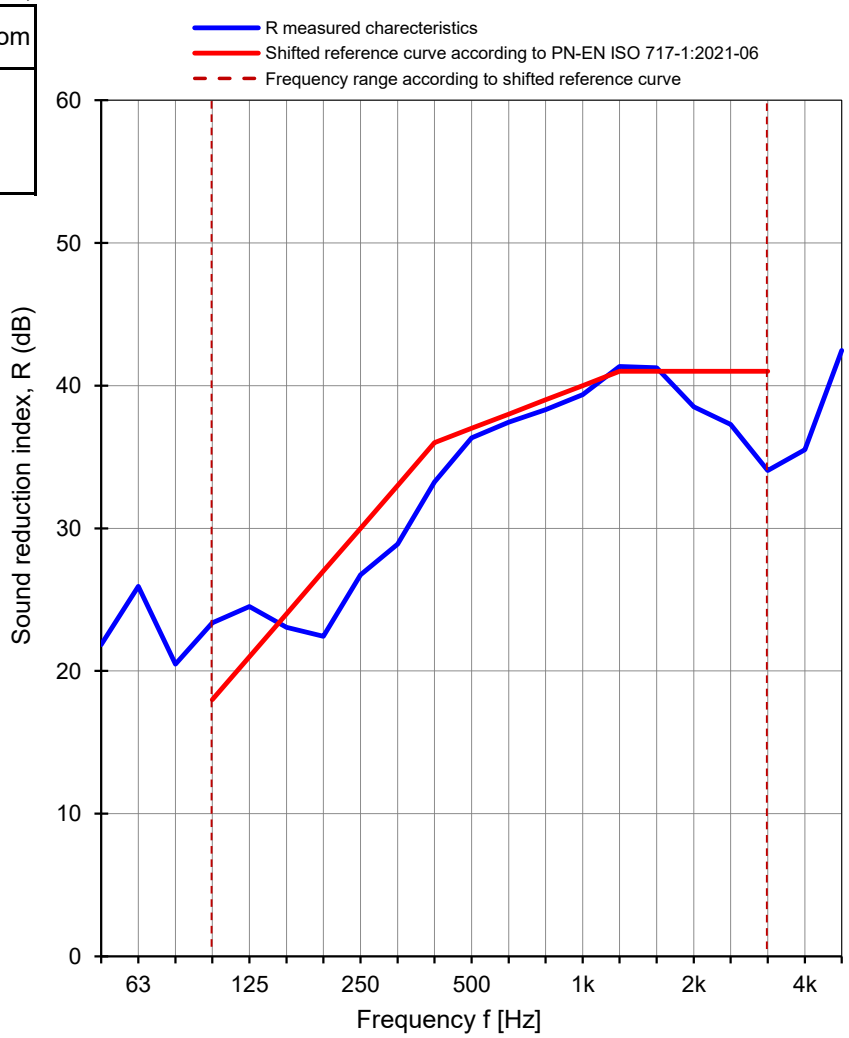
The surface area of test specimen: **1,87 m^2**

Parameter	Receiving room	Source room
Air temp. [°C]	21,0	21,4
Humidity [%]	59	56
Pressure [hPa]	1003	1003
Volume [m^3]	372	324

Frequency [Hz]	Test results with uncertainty R [dB]	U_{CR} [dB]
50	21,9	3,4
63	25,9	2,5
80	20,5	2,0
100	23,4	3,2
125	24,5	1,6
160	23,1	1,1
200	22,4	1,0
250	26,7	1,6
315	28,9	1,1
400	33,3	1,0
500	36,3	0,9
630	37,4	0,9
800	38,3	0,9
1000	39,4	0,7
1250	41,3	0,8
1600	41,2	0,9
2000	38,5	0,7
2500	37,3	0,8
3150	34,1	1,0
4000	35,5	1,0
5000	42,5	0,9

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

Rw (C; Ctr)= 37 (-2; -4) dB

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

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

Rw = 37,0 dB

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1559.29 / 21

Date: 03.11.2021 Signature: Robert Dybicz