

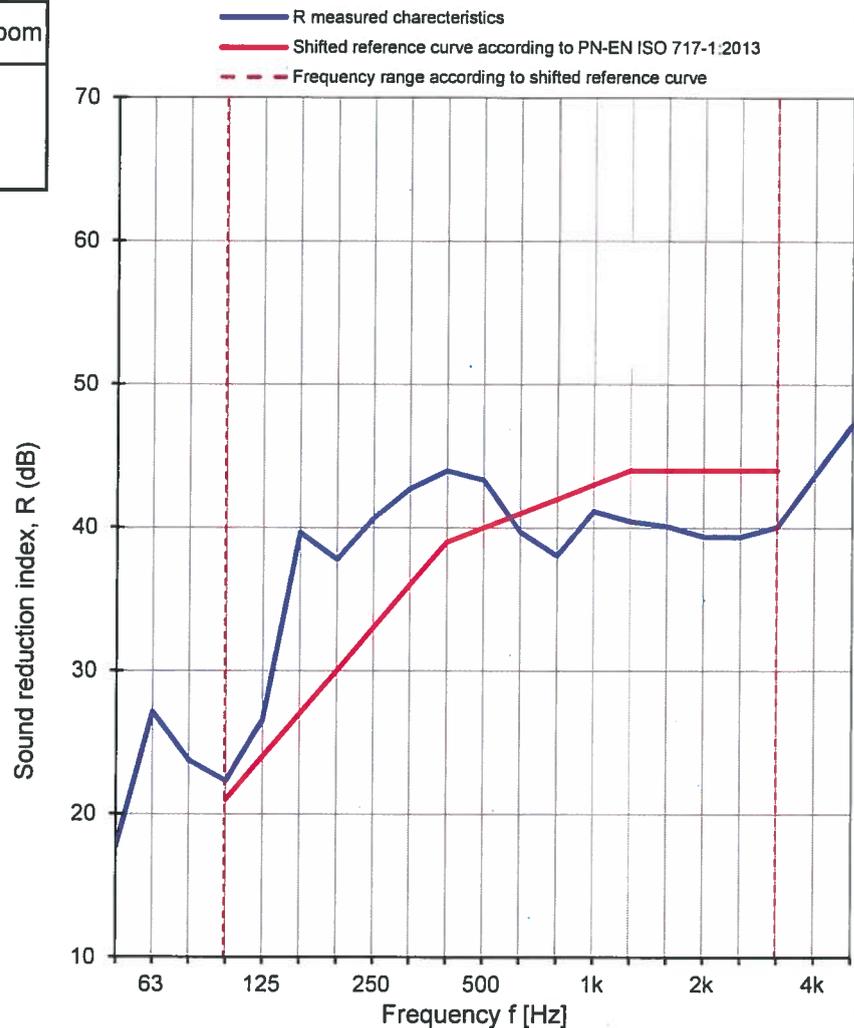
Sound reduction index in accordance with PN - EN ISO 10140-2 (2011)

Laboratory measurements of airborne sound insulation of building elements

Client: **NorDan AS**Measurement date: **24.04.2018**Address: **Stasjonsveien 46, N-4460 Moi Norway**Test specimen: **TEST no. 9, door no. 4****Top of the door leaf glazed by 8 / 20 / 44.1 Silence (PressGlass)****Bottom of the door leaf: 1mm aluminum plate + 5,5mm HDF + 8 / 20 / 44.1 Silence + 5,5 mm HDF****From the outside on the frame and door leaf the aluminum cladding****Additional anti-dust seal on the side edges of the frame**Size of test specimen: **988 x 2088 mm**Test specimen mounted by: **Gryfitlab Sp. z o.o.**Mass per unit area: **kg/m²**The surface area of test specimen: **2,19 m²**

Parameter	Receiving room	Source room
Air temp. [°C]	19,5	19,5
Humidity [%]	55	55
Pressure [hPa]	1014	1014
Volume [m ³]	324	372

Frequency [Hz]	Test results with uncertainty	
	R [dB]	U _{CR} [dB]
50	17,7	3,9
63	27,1	3,1
80	23,8	2,8
100	22,3	3,0
125	26,6	2,7
160	39,7	2,2
200	37,8	2,2
250	40,7	2,0
315	42,7	2,0
400	44,0	2,1
500	43,3	2,0
630	39,7	2,0
800	38,0	2,0
1000	41,1	2,0
1250	40,4	2,0
1600	40,1	1,9
2000	39,4	1,9
2500	39,4	1,9
3150	40,1	1,9
4000	43,6	1,9
5000	47,2	2,0

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 717-1:2013

R_w (C; C_{tr}) = 40 (-1; -2) dBC₅₀₋₃₁₅₀ = -1 dBC₅₀₋₅₀₀₀ = 0 dBC₁₀₀₋₅₀₀₀ = 0 dBC_{tr, 50-3150} = -4 dBC_{tr, 50-5000} = -4 dBC_{tr, 100-5000} = -2 dB**R_w = 40,5 dB**

GRYFITLAB Sp. z o.o. Laboratory of Acoustics

No. of test specimen: GLA-1372.9/18

Date: 24.04.2018

Signature: Robert Dybicz