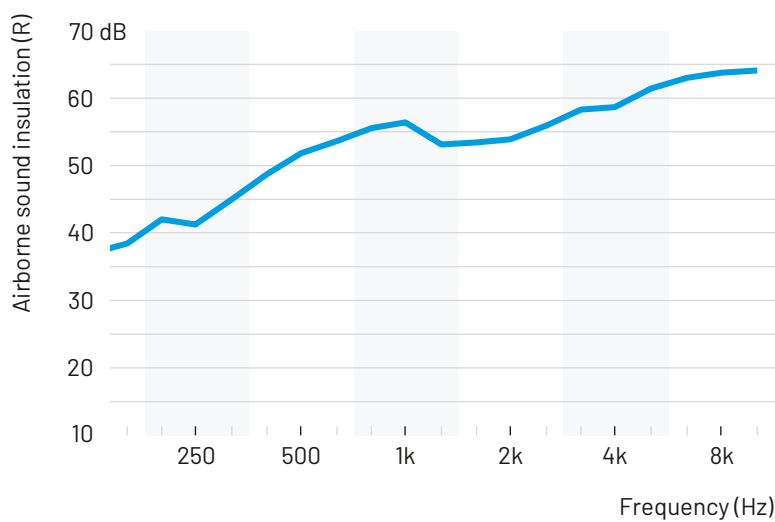


M53 door

Laboratory measurements of sound insulation of the Merford type M53 door

Laboratory: TNO Technisch Physische Dienst TU Delft
 Test element: door type M53
 Manufacturer: Merford Special Doors

Project nr.: 628041
 Area, S, of test element: 2,0 m²
 Mass per unit area M53: 45 kg/m²
 Receiving room volume: 89 m³



Frequency (Hz)	R 1/3 oct (dB)	R 1/1 oct (dB)
50	29,8	
63	14,1	17,7
80	19,8	
100	31,0	
125	37,0	34,2
160	38,5	
200	41,9	
250	41,0	42,3
315	44,9	
400	48,8	
500	51,9	51,0
630	53,9	
800	55,3	
1000	55,8	54,9
1250	53,8	
1600	54,6	
2000	55,8	56,0
2500	58,5	
3150	58,7	
4000	61,1	60,6
5000	63,0	
6300	63,5	
8000	63,9	63,9
10000	64,4	

Sound insulation measurements on M53 door took place in a laboratory. Single leaf, size 950 x 2100 mm, with treshold H=48 mm, 2 pcs compression type latches, no vision panel. Different leaf configuration, treshold, locks, vision panels, etc. will affect sound insulation values.

Rating in accordance with ISO 717-1: $R_w = 53$ dB
 C -2 dB
 Ctr -6 dB
 STC 53

Ra traffic	46,1 dB
Ra rail traffic	52,8 dB
Ra air traffic	49,6 dB
Ra background	47,3 dB
Ra dance	36,8 dB
Ra ultra bass	23,6 dB
Ra metalworking	49,6 dB
Ra woodworking	44,4 dB
Ra voice	49,7 dB
Ra industry	37,3 dB
Ra cinema	36,8 dB
Ra pop	42,2 dB
Ra house	30,4 dB
Ra HES	27,5 dB
Ra ambient noise	46,1 dB