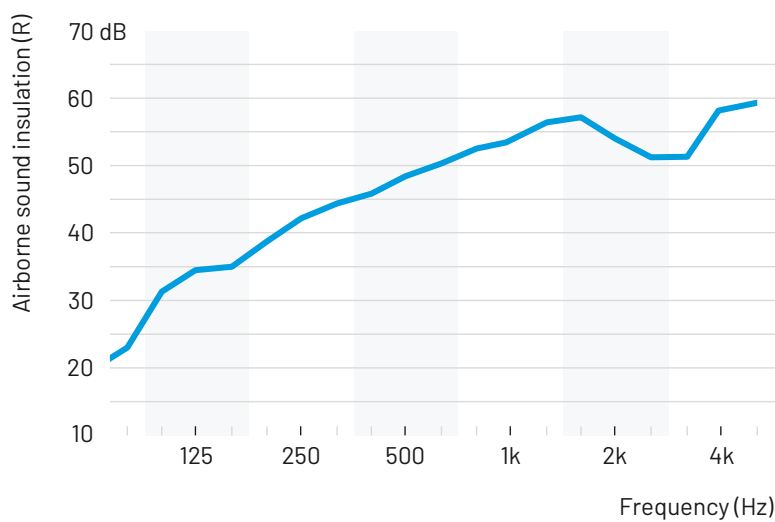


M51 door

Laboratory measurements of sound insulation of the Merford type M51 door

Laboratory: Cauberg-Huygen Zwolle
 Test element: door type M51
 Manufacturer: Merford Special Doors

Project nr.: 20100880
 Area, S, of test element: 2,1 m²
 Mass per unit area M41: 49 kg/m²
 Receiving room volume: 86 m³



Frequency (Hz)	R 1/3 oct (dB)	R 1/1 oct (dB)
50	29,8	
63	18,0	21,3
80	22,6	
100	30,7	
125	34,8	41,3
160	35,1	
200	38,9	
250	42,3	47,6
315	44,8	
400	45,5	
500	48,4	53,8
630	50,1	
800	52,4	
1000	53,9	53,1
1250	55,9	
1600	56,6	
2000	54,7	54,2
2500	50,4	
3150	50,5	
4000	58,3	48,9
5000	59,8	

Sound insulation measurements on M51 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: $R_w = 51$ dB
 C -2 dB
 Ctr -6 dB
 STC 51

Ra pop	42,9 dB
Ra house	33,3 dB
Ra traffic	44,7 dB
Ra rail traffic	50,8 dB
Ra air traffic	48,0 dB
Ra HES	30,7 dB
Ra voice	47,6 dB
Ra cinema	37,4 dB
Ra background	46,8 dB
Ra dance	38,7 dB
Ra ultra bass	26,9 dB