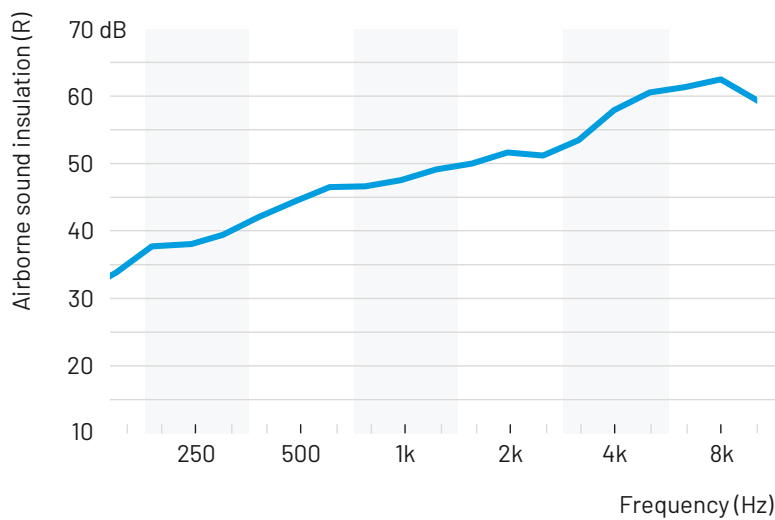


M47 door

Laboratory measurements of sound insulation of the Merford type M47 door

Laboratory: TNO Technisch Physische Dienst TU Delft
 Test element: door type M47
 Manufacturer: Merford Special Doors

Project nr.: 628041
 Area, S, of test element: 2,21 m²
 Mass per unit area: 35 kg/m²
 Receiving room volume: 100 m³



Frequency (Hz)	R 1/3 oct (dB)	R 1/1 oct (dB)
50	24,1	
63	14,2	16,7
80	16,4	
100	20,4	
125	30,9	24,6
160	34,1	
200	37,6	
250	37,8	38,2
315	39,5	
400	42,2	
500	44,8	44,2
630	46,8	
800	46,9	
1000	47,5	47,7
1250	49,1	
1600	50,1	
2000	51,7	50,9
2500	51,2	
3150	53,2	
4000	58,1	56,1
5000	60,2	
6300	61,6	
8000	62,6	61,0
10000	59,5	

Sound insulation measurements took place in a laboratory. Specimen door M47, 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: $R_w = 47$ dB
 C -2 dB
 Ctr -8 dB
 STC 47

Ra ambient noise	37,7 dB
Ra pop	36,6 dB
Ra house	27,8 dB
Ra traffic	37,7 dB
Ra rail traffic	46,1 dB
Ra air traffic	42,6 dB
Ra HES	25,6 dB
Ra metalworking	41,8 dB
Ra woodworking	36,5 dB
Ra voice	43,0 dB
Ra industry	34,6 dB
Ra cinema	30,5 dB
Ra ultra bass	22 dB
Ra background	42 dB