

ACOUSTIC DATA

All tests have been conducted by Acoustical Investigation and Research Organisation Ltd (AIRO) using RW3 60kg/m³ mineral wool infill for voids and panels.

All panels are tested in accordance with BS 2750: Part 3: 1980 and BS 5821: Part 1: 1984 standards.

SOUND REDUCTION - ALL STEEL

The Weighted Sound Reduction Index R_w = 34 dB (BS 5821:Part 1:1984)

Frequency Hz	Sound Reduction Index dB	Frequency Hz	Sound Reduction Index dB
100	8.6	630	37.5
125	9.4	800	39.7
160	18.1	1000	41.8
200	22.8	1250	44.2
250	25.4	1600	43.6
315	26.6	2000	44.6
400	30.6	2500	48.4
500	34.5	3150	48.1

SOUND REDUCTION - SINGLE GLAZED

The Weighted Sound Reduction Index R_w = 34 dB (BS 5821:Part 1:1984)

Frequency Hz	Sound Reduction Index dB	Frequency Hz	Sound Reduction Index dB
100	11.1	630	36.0
125	14.0	800	37.1
160	20.1	1000	38.6
200	23.8	1250	38.4
250	25.6	1600	36.2
315	28.2	2000	33.5
400	38.9	2500	33.0
500	33.4	3150	35.7

SOUND REDUCTION - DOUBLE GLAZED

The Weighted Sound Reduction Index $R_w = 36$ dB (BS 5821:Part 1:1984)

Frequency Hz	Sound Reduction Index dB	Frequency Hz	Sound Reduction Index dB
100	11.9	630	38.3
125	12.1	800	40.6
160	21.7	1000	42.5
200	25.4	1250	44.3
250	25.2	1600	44.2
315	29.5	2000	44.1
400	30.8	2500	44.9
500	34.8	3150	43.4

THERMAL DATA

Panel Composition	Panel Construction	Thermal Transition Value (U)
All Steel Partition	0.7mm steel panel skin with 47mm RW3 mineral wool infill.	$U=0.580$ W/m K
Single Glazed Partition Steel Glass Steel	0.7mm steel panel skin with 47mm RW3 mineral wool infill, glazed with a single 6.4mm thick pane of laminated glass.	$U=1.637$ W/m K
Double Glazed Partition Steel Glass Steel	0.7mm steel panel skin with 47mm RW3 mineral wool infill, double glazed with two 6.4mm laminated glass panels.	$U=0.601$ W/m K