

Sound Insulation



**DURATION
WINDOWS**

Secondary Glazing Sound Insulation

Lining the reveals with acoustic absorbent material (fibreboard) is beneficial because it can reduce reverberation in the cavity, giving an overall improvement of 2-6 dB, according to its area and absorption characteristics.

Increasing the width of cavity produces an increase of sound insulation, but not pro rata. Beyond a spacing of about 200mm it is normally uneconomical to install such windows because the incremental acoustic improvement is small.

**Table 1
Sound
Insulation
Data
for
Single
Glazing**

Thirdoctaveband Centre Frequency (Hz)	Sound Insulation (dB) for Glass Thickness (mm)							
	4		6		6.4 PVB		Pilkington Acoustic Laminate 7	
100	17		18		18		23	
125	23	20	22	20	22	20	25	24
160	22		22		22		25	
200	21		22		22		24	
250	21	22	26	24	26	24	26	26
315	24		26		26		28	
400	26		29		29		30	
500	29	28	31	31	31	31	32	32
630	30		33		33		34	
800	32		34		34		36	
1000	34		36	35	36	35	37	37
1250	34	33	36		36		39	
1600	36		32		36		39	
2000	36	34	26	29	34	33	40	40
2500	31		30		31		41	
3150	25		34		35		39	
4000	31	28	37	36	39	38	35	37
R_m (dB)	27		29		30		32	
R_w (dB)	30		32		33		36	
R_{TRA} (dBA)	27		28		29		31	

