Noise reduction solutions using glazing

The following tables take the specified "Design Sound Level Range" for rooms from AS/NZS 2107: 2016, for various occupancies and activities, and lists the glass to be used to achieve the upper and lower sound level at the room side of the glass.

The standard provides a range for the "Design Sound Level" for a variety of occupancies and activities. The lower level of the range is the most desirable while the upper level should be seen as the least desirable.

The glass solution to achieve the lower level of the "Design Sound Level" range is found in the "Glass required to limit transmission to recommended design noise level" column of the table. This is the most desirable solution.

The glass solution to achieve the upper level of the "Design Sound Level" range is found in the "Glass required to limit transmission to maximum design noise level" column of the table. This is the least desirable solution. The tables provide the solution for both traffic and aircraft noise for some of the building use designations shown in AS/NZS 2107: 2016. The attenuation of traffic noise in this table is represented by Rw+Ctr and aircraft noise is represented by Rw+C. These tables relate to the noise level at the room side of the glass not necessarily the noise level in the room because the level in the room is also influenced by other factors such as the roof, walls and floor, not just the glass in the windows.

It should be remembered the "Design Sound Levels" suggested in AS2107 may not necessarily be appropriate in all circumstances. There are various methods for analysing and finding a solution to a noise problem. An acoustic consultant is an authoritative source of information and advice for analysing and developing solutions to noise problems. Consideration should be given to employing their expertise.

| | | Traffic Noise | | | | Aircraft Noise | | | |
|---|----------------------------------|---|----|---|----|---|----|---|----|
| | External Noise Level dB | Internal noise level (room s | | Internal noise level (room side of glass) | | | | | |
| Type of Occupancy | | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| Board Room | 65 | 10.5mm VLam™ Hush | 30 | 4mm Float™ | 37 | 6.5mm VLam™ Hush | 30 | 4mm VFloat™ | 36 |
| Design Sound Level Range 30dB | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.38mm VLam™ | 40 | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 29 | 6.38mm VLam™ | 38 |
| to 40dB (Recommended noise level in room = 30dB) (Maximum suggested noise | 75 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 30 | 10.5mm VLam™ Hush | 40 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.5mm VLam™ Hush | 40 |
| level permitted in room = 40dB) | 80 | No standard solution | - | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | No standard solution | - | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 39 |
| Cafeteria Design | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat ™ | 36 |
| Sound Level Range 45dB to 50dB | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| (Recommended noise level in | 75 | 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 5mm VFloat™ | 45 | 4mm VFloat™ | 46 |
| room = 45dB) (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| Call Centre Design | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Sound Level Range 40dB to 45dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| (Recommended noise level in | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Computer Room | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 45dB | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| to 50dB | 75 | 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 5mm VFloat™ | 45 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 45dB) (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| Consulting Rooms | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 40dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| to 45dB | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| (Recommended noise level in room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |

| | | Traffic Noise | | Aircraft Noise | | | | | |
|---|----------------------------------|---|----|---|----|---|----|---|----|
| | External Noise Level dB | Internal noise level (room s | | Internal noise level (room s | | | | | |
| Type of Occupancy | | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| General Office Areas | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 40dB to 45dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| (Recommended noise level in | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Executive Offices | 65 | 6.38mm VLam™ | 35 | 4mm VFloat™ | 37 | 5mm VFloat™ | 35 | 4mm VFloat™ | 36 |
| Design Sound Level Range 35dB | 70 | 10.5mm VLam™ Hush | 35 | 6.38mm VLam™ | 40 | 6.5mm VLam™ Hush | 35 | 6.38mm VLam™ | 38 |
| to 40dB Recommended noise level in room = 35dB) | 75 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 10.5mm VLam™ Hush | 40 | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 34 | 6.5mm VLam™ Hush | 40 |
| (Maximum suggested noise level in room = 40dB) | 80 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 35 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 39 |
| Reception Area | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 40dB to 45dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| (Recommended noise level in | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Lobby Design | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Sound Level Range 45dB to 50dB | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| (Recommended noise level in room = 45dB) | 75 | 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 5mm VFloat™ | 45 | 4mm VFloat™ | 46 |
| (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| General Offices | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 40dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| to 45dB | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| (Recommended noise level in room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |

| | | Traffic Noise | | | | Aircraft Noise | | | |
|---|----------------------|---|--------|---|----|---|----|---|----|
| Type of | External | Internal noise level (room s | glass) | Internal noise level (room side of glass) | | | | | |
| Occupancy | Noise Level dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| Airport Departure Lounge | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| Range 45dB to 50dB | 75 | 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 5mm VFloat™ | 45 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 45dB) (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| Airport Passenger | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Check-in Area Design | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| Sound Level Range 45dB to 50dB | 75 | ™ 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 5mm VFloat™ | 45 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 45dB) (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| Art Gallery Design | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Sound Level Range 40dB to 45dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 6.38mm VLam™ | 38 | 4mm VFloat™ | 41 |
| (Recommended noise level in room = 40dB) | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Exhibition Areas | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level Range 40dB | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 5mm VFloat™ | 40 | 4mm VFloat™ | 41 |
| to 50dB (Recommended noise level in | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 4mm VFloat™ | 46 |
| room = 40dB) (Maximum suggested noise level in room = 50dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.38mm VLam™ | 48 |
| Place of Worship | 65 | 10.5mm VLam™ Hush | 30 | 4mm VFloat™ | 40 | 6.5mm VLam™ Hush | 30 | 4mm VFloat™ | 36 |
| Design Sound Level Range 30dB to 40dB | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.38mm VLam™ | 40 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 29 | 5mm VFloat™ | 40 |
| (Recommended noise level in room = 30dB) | 75 | 10mm VFloat™ + 200mm Gap + ómm VFloat™ | 30 | 10.5mm VLam™ Hush | 40 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.5mm VLam™ Hush | 40 |
| (Maximum suggested noise level in room = 40dB) | 80 | No standard solution | - | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | No standard solution | - | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 |

| | | Traffic Noise | | | | Aircraft Noise | | | |
|---|----------------------|---|----|---|----|---|----|---|----|
| | External | Internal noise level (room s | | | | Internal noise level (room s | | | |
| Type of Occupancy | Noise Level dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| Court Room | 65 | 10.5mm VLam™ Hush | 30 | 6.38 VLam™ | 35 | 6.5mm VLam™ Hush | 30 | 5mm Float™ | 35 |
| Design Sound Level Range 30dB to 35dB | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 10.5mm VLam™ Hush | 35 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 29 | 6.5mm VLam™ Hush | 35 |
| (Recommended noise level in room = 30dB) | 75 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 30 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 8.5mm VLam Hush + 16mm Gap + 12.5mm VLam Hush | 30 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 34 |
| (Maximum suggested noise level in room = 35dB) | 80 | No standard solution | - | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 35 | No standard solution | - | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 |
| Library Reading Area | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 5mm VFloat™ | 40 | 4mm VFloat™ | 41 |
| Range 40dB to 45dB (Recommended | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| noise level in room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Museum Exhibition Area | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Design Sound Level | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 5mm VFloat™ | 38 | 4mm VFloat™ | 41 |
| Range 40dB to 45dB | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 5mm VFloat™ | 45 |
| (Recommended noise level in room = 40dB) (Maximum suggested noise level in room = 45dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 10.5mm VLam™ Hush | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.5mm VLam™ Hush | 45 |
| Post Offices and | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| General Banking Areas | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| Design Sound Level Range 45dB to 50dB | 75 | 6.38mm VLam™ | 45 | 4mm VFloat™ | 47 | 6.38mm VLam™ | 43 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 45dB) (Maximum suggested noise level in room = | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| 50dB) Railway and | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Bus Terminal Ticket Areas Design | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| Sound Level Range 45dB to 50dB | 75 | 6.38mm VLam™ | 45 | 6.38mm VLam™ | 45 | 6.38mm VLam™ | 43 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 45dB) | | | 15 | | .5 | | .5 | | 10 |
| room = 45dB) (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |

| | | Traffic Noise | | | | Aircraft Noise | | | |
|--|----------------------|---|----|---|----|---|----|---|----|
| | External | Internal noise level (room s | | | | Internal noise level (room s | | | |
| Type of Occupancy | Noise Level dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| Restaurants, and Coffee | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| shops Design Sound Level | 70 | 6.38mm VLam™ | 40 | 4mm VFloat™ | 42 | 5mm VFloat™ | 38 | 4mm VFloat™ | 41 |
| Range 40dB to 50dB | 75 | 10.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 45 | 6.5mm VLam™ Hush | 40 | 4mm VFloat™ | 46 |
| (Recommended noise level in room = 40dB) (Maximum suggested noise level in room = 50dB) | 80 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 6.38mm VLam™ | 50 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 | 6.38mm VLam™ | 48 |
| Coffee Bars Design | 65 | 4mm VFloat™ | 37 | 4mm VFloat™ | 37 | 4mm VFloat™ | 36 | 4mm VFloat™ | 36 |
| Sound Level Range 45dB to 50dB | 70 | 4mm VFloat™ | 42 | 4mm VFloat™ | 42 | 4mm VFloat™ | 41 | 4mm VFloat™ | 41 |
| (Recommended noise level in room = 45dB) | 75 | 6.38mm VLam™ | 45 | 6.38mm VLam™ | 45 | 6.38mm VLam™ | 43 | 4mm VFloat™ | 46 |
| (Maximum suggested noise level in room = 50dB) | 80 | 10.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 50 | 6.5mm VLam™ Hush | 45 | 6.38mm VLam™ | 48 |
| Houses and Apartments | 65 | 10.5mm VLam™ Hush | 30 | 6.38 VLam™ | 35 | 6.5mm VLam™ Hush | 30 | 5mm VFloat™ | 35 |
| near minor roads Sleeping Areas | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 10.5mm VLam™ Hush | 35 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 29 | 6.5mm VLam™ Hush | 35 |
| Design Sound Level Range 30dB to 35dB | 75 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 30 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 34 |
| (Recommended noise level in room = 30dB) (Maximum suggested noise level in room = 35dB) | 80 | No standard solution | | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 35 | No standard solution | | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 |
| Houses and Apartments | 65 | 10.5mm VLam™ Hush | 30 | 4mm VFloat™ | 37 | 6.5mm VLam™ Hush | 30 | 4mm VFloat™ | 36 |
| near minor roads Living Areas | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.38mm VLam™ | 40 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 29 | 5mm VFloat™ | 40 |
| Design Sound Level Range 30dB to 40dB | 75 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 30 | 10.5mm VLam™ Hush | 40 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 6.5mm VLam™ Hush | 40 |
| (Recommended noise level in room = 30dB) (Maximum suggested noise level in room = 40dB) | 80 | No standard solution | - | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | No standard solution | - | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 39 |
| Houses and Apartments | 65 | 6.38mm VLam | 35 | 4mm Float | 37 | 5mm VFloat | 35 | 4mm VFloat | 36 |
| near major roads Sleeping | 70 | 10.5mm VLam Hush | 35 | 6.38mm VLam | 40 | 6.5mm VLam Hush | 35 | 5mm VFloat | 38 |
| Areas Design Sound Level Range 35dB | 75 | 8.5mm VLam Hush + 16mm Gap + 12.5mm VLam Hush | 35 | 10.5mm VLam Hush | 40 | 8mm VFloat + 16mm Gap + 10.5mm VLam Hush | 34 | 6.5mm VLam Hush | 40 |
| to 40dB (Recommended noise level in room = 35dB) (Maximum suggested noise level in room = 40dB) | 80 | 10mm VFloat+ 200mm Gap + 6mm VFloat | 35 | 8.5mm VLam Hush + 16mm Gap + 12.5mm VLam Hush | 40 | 8.5mm VLam Hush + 16mm Gap + 12.5mm VLam Hush | 35 | 8mm VFloat + 16mm Gap + 10.5mm VLam Hush | 39 |

| | | Traffic Noise | | | | Aircraft Noise | | | |
|---|----------------------|---|----|---|----|---|----|---|----|
| | External | Internal noise level (room s | | Internal noise level (room side of glass) | | | | | |
| Type of Occupancy | Noise Level dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB | Glass required to limit transmission to recommended design noise level | dB | Glass required to limit transmission to maximum design noise level | dB |
| Houses and Apartments near major | 65 | 6.38mm VLam™ | 35 | 4mm VFloat™ | 37 | 5mm VFloat™ | 35 | 4mm VFloat™ | 36 |
| roads Living Areas | 70 | 10.5mm VLam™ Hush | 35 | 4mm VFloat™ | 42 | 6.5mm VLam™ Hush | 35 | 4mm VFloat™ | 41 |
| Design Sound Level Range 35dB to 45dB | 75 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 6.38mm VLam™ | 45 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 34 | 6.38mm VLam™ | 43 |
| (Recommended noise level in room = 35dB) (Maximum suggested noise level in room = 45dB) | 80 | 10mm VFloat™ + 200mm Gap + ómm VFloat™ | 35 | 10.5mm VLam™ Hush | 45 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 6.5mm VLam™ Hush | 45 |
| Hotels and Motels near | 65 | 10.5mm VLam™ Hush | 30 | 6.38mm VLam™ | 35 | 6.5mm VLam™ Hush | 30 | 5mm VFloat™ | 35 |
| minor roads Sleeping areas Design | 70 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 10.5mm VLam™ Hush | 35 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 29 | 6.5mm VLam™ Hush | 35 |
| Sound Level Range 30dB to 35dB | 75 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 30 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 30 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 34 |
| (Recommended noise level in room = 30dB) (Maximum suggested noise level in room = 35dB) | 80 | No standard solution | - | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 35 | No standard solution | - | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 |
| Hotels and Motels near major roads | 65 | 6.38mm VLam™ | 35 | 4mm VFloat™ | 37 | 5mm VFloat™ | 35 | 4mm VFloat™ | 36 |
| Sleeping Areas | 70 | 10.5mm VLam™ Hush | 35 | 6.38mm VLam™ | 40 | 6.5mm VLam™ Hush | 35 | 5mm VFloat™ | 40 |
| Design Sound Level Range 35dB to 40dB | 75 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 10.5mm VLam™ Hush | 40 | 8mm VFloat™ + 16mm Gap + 10.5mm VLam™ Hush | 34 | 6.5mm VLam™ Hush | 40 |
| (Recommended noise level in room = 35dB) (Maximum suggested noise level in room = 40dB) | 80 | 10mm VFloat™ + 200mm Gap + 6mm VFloat™ | 35 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 40 | 8.5mm VLam™ Hush + 16mm Gap + 12.5mm VLam™ Hush | 35 | 8mm VFloat™ + 16mm Gap + 10.5 VLam™ Hush | 39 |

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