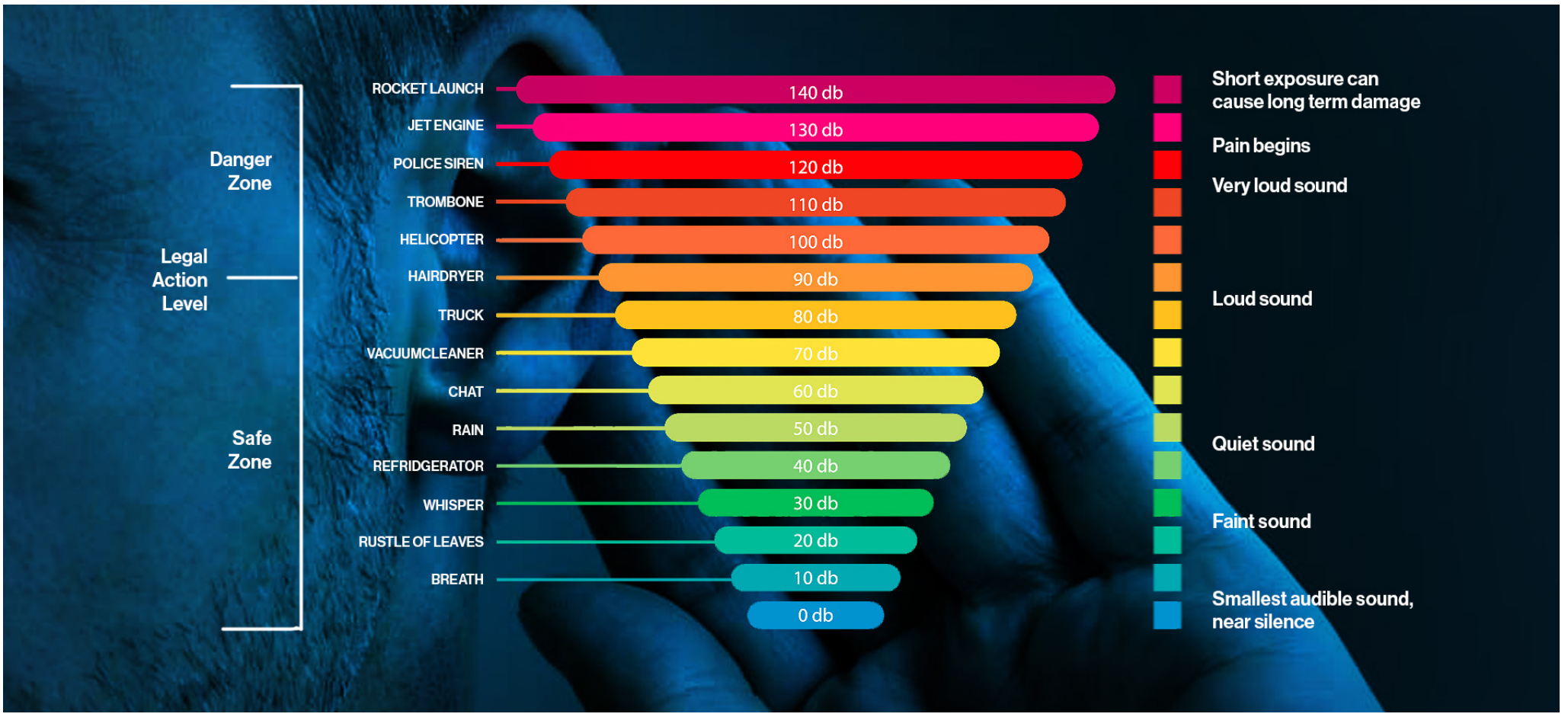
GLASS ACOUSTICS
A Guide to Acoustic levels

We provide glass-based solutions to reduce external noise intrusion for domestic and commercial installations. Whilst we can offer a wide range of glazing options from basic to enhanced levels of noise control, the whole installation must be assessed to determine performance levels.

Noise can travel through small gaps, so opening sashes, gaskets, etc, must all be in top condition. Any physical void in the frame, whether that be due to poor fit or ventilation, will counteract much of the noise reduction made in the glass unit.



Double Glazed-Argon Filled

4/16/4	Rw=31 (-1,-4) dB
4/18/4	Rw=33 (-1,-5) dB
4/20/4	Rw=30 (0,-4) dB
6/16-20/4	Rw=35 (-1,-5) dB
6/12+16/6	Rw=33 (-1,-4) dB
6/14/6	Rw=34 (-2,-5) dB
6/18/6	Rw=35 (-1,-4) dB
6/20/6	Rw=36 (-2,-5) dB
6.8/18/4	Rw=37 (-2,-6) dB
6.8/16/6	Rw=37 (-2,-6) dB
6.8Acc/16-18/4	Rw=38 (-2,-6) dB
6.8Acc/16/6	Rw=39 (-2,-6) dB

Triple Glazed-Argon Filled

4/12-16/4/12-16/4	Rw=32 (-1,-5) dB
6/12/6/12/6	Rw=34 (-2,-6) dB
6.8/12/4/14/4	Rw=36 (-1,-6) dB
6.8Acc/12/4/14/4	Rw=38 (-2,-6) dB

Rw	Rw stands for The Weighted Sound Reduction Index. It is a number used to rate the effectiveness of a soundproofing system or material. It is the most common measure, and it weighs a 'basket' of frequencies while incorporating human ear correction. This is our default measure for all enquiries unless stated otherwise.
Ctr	Ctr is an adjustment factor that accounts for low-frequency noise such as road traffic or music.
C	This measure provides a simple average across a range of frequencies typical to everyday living, such as TV, talking and children playing.

When assessing the level of audible sound reduction in glass, the Rw number is stated, followed by a reduction figure for the Ctr and C values, giving a spectrum of sound in each place.

Things to consider

- A unit incorporating two different glass thicknesses will perform better acoustically.
- The decibel scale is logarithmic, so an increase in the Rw of 10db, will equate to a 50% reduction In the audible level of sound.
- The difference of 1 decibel is not discernible while 3 decibels is on the limit of human perception. A difference of 5 decibels is noticeable.
- The cavity is generally irrelevant to the Rw regarding human perception but does affect U-Value so, must be considered.

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