



## Acoustically Superior

The most important factor determining the ability of a wall system to absorb transmitted sound is its mass per surface area. There is no such thing as an ultra - lightweight, high efficiency acoustic partition.

The Hub has a very high mass per surface area which, to our knowledge, is higher than similar structures





## Timber used - kiln dried Douglas Fir and Birch Plywood.

Timber performs strongly in the acoustic arena - whether the objective is to enhance sound or reduce sound. Its network of small interlocking wood cells converts sound energy into heat energy by frictional resistance within these cells and by vibrations within their sub - structure.

Because of this internal friction, wood has a stronger sound dampening capacity than most structural materials. While a harder surface will also reflect sound it does so in a much harsher way, resulting in stronger echoes. The natural acoustic properties of timber control this excessive echo or reverberation by reducing the transmission of sound vibrations.

Plywood is a excellent reflector of sound, an acoustic property put to good use in applications such as the lining of the Sydney Opera House.

### BENEFIT 1

50mm of Douglas Fir frame blocks more sound than a hollow thin walled aluminium frame.

### BENEFIT 2

18mm of birch plywood blocks more sound than thinner lighter panels.

### BENEFIT 3

Timber has a stronger dampening capacity than harder surfaced materials.



## Glass used - Stadip Silence

The patented acoustic film used in SGG STADIP SILENCE acts as a dampener preventing the glass panes from resonating with each other and ensuring an even sound insulation across the frequency range. In addition to its excellent acoustic properties, SGG STADIP SILENCE also provides protection against injury and the highest safety levels required for safety critical areas.

### BENEFIT

At 12.8 mm this Glass has a dB rating of 39 which to our knowledge is higher than that used in similar structures.

## Absorption used - Quiet Space Panels

Engineered for superior sound absorption and balanced acoustic design across all frequencies, QuietSpace Panel is a premium sound solution for wall and ceiling applications.

### BENEFIT

Benefit - At 50mm the panel has an NRC of 1 which absorbs 100% of all the sound that hits it and at 25mm the panel has an NRC of .85 which absorbs 85% of all the sound that hits it, which, again to our knowledge is higher than that used in similar structures.