



QuietWave[®] BioFoam Noise Barrier

Incorporating the 'Green Chemistry' Principles

QuietWave[®] is a high performance drywall noise barrier that delivers exceptional performance due to its patented micro-cellular membrane developed, tested and manufactured in Australia.

The QuietWave[®] (BioFoam) biologically derived, flexible noise barrier and vibration damping material, is typically used in walls, floors, ceilings and pipe lagging. The product can also be applied to doors, partitions and furniture applications to reduce airborne noise and vibration transfer.

QuietWave[®]

- ✓ Exceeds BCA minimum requirements
- ✓ Can achieve the highest AAAC acoustic rating of 6 stars
- ✓ Thinnest and lightest possible wall for the highest acoustic rating
- ✓ Most economic 6 star rating wall system available
- ✓ Low VOCs (Less than a recognised threshold of 0.5mg "Green Star")

Acoustica's QuietWave[®] noise barrier isolates noise and dampens sound vibration to increase sound transmission loss. The vibration decay in the organic QuietWave[®] viscoelastic noise barrier parallels the theoretical performance of the ideal limp mass barrier.

The development of the World's first natural organic noise barrier has been achieved with a matching acoustic performance of R1,cw 27 for the 2.5kg/m² (Wilkinson & Murray test results following page).

QuietWave[®] has been certified by the CSIRO Division of Materials Science and Engineering as Group 1 Fire Rated Tests are showing that when QuietWave[®] is sandwiched between two layers of 13mm Firecheck plasterboard, the Sound Transmission Loss (STL) achieves equivalent to 5 layers of the same plasterboard.

QuietWave[®] is incorporated into Acoustica's range of acoustic products for walls, partitions, floors, ceilings and pipe lagging.

Typical Applications:

- Multi-residential walls and ceilings
- Retrofits
- High Confidentiality partition wall systems (for Lawyers, Doctors, Dentists, etc)
- Commercial walls and ceilings
- Improving existing partition wall & ceiling performance
- Sole occupancy unit dividing walls
- Boardroom and office division walls



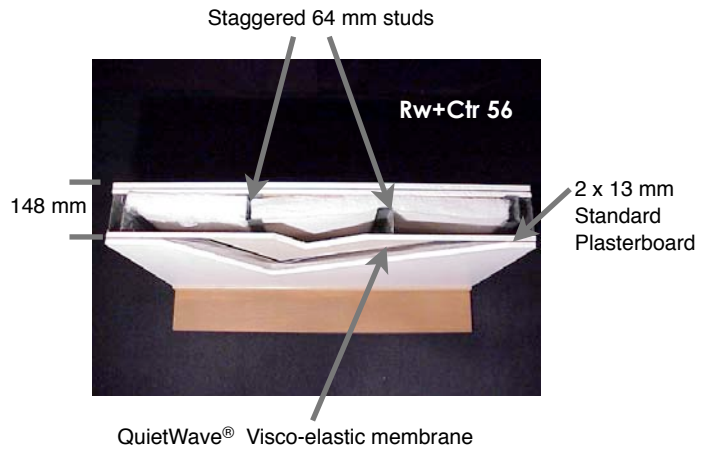
Acoustic Performance Index*

When the concept of Acoustic Performance Index is applied to the QuietWave® BioFoam wall system, the score is extremely high. Acoustic Performance Index takes into account the cost of the wall compared to its acoustic performance and to the thickness of the wall and the floor space cost.

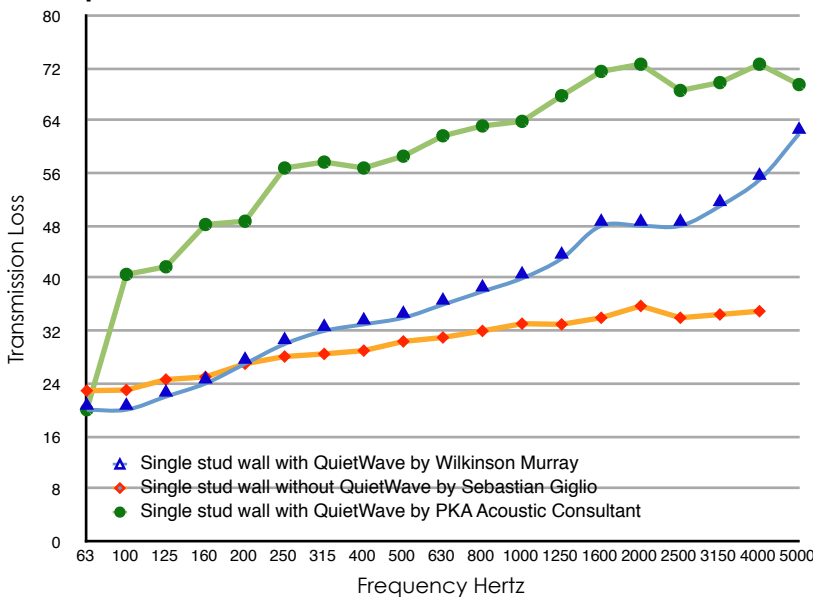
The QuietWave® wall system is only 148 mm wide and has an acoustic performance that can only be matched by the best wall system at 280 - 300 mm wide.

* Comments by PKA Acoustic

A typical high performance partition wall



Comparison Transmission Loss Test Results



Typical QuietWave® wall construction system = Rw + Ctr 56 *

- One 13 mm standard plasterboard
 - One 1.2 mm QuietWave® visco-elastic membrane
 - One 13 mm standard plasterboard
 - 64 mm staggered studs in a 92 mm track
 - 50 mm thick insulation
 - One 13 mm thick plasterboard
 - One 1.2 mm thick QuietWave® visco-elastic membrane
 - One 13 mm plasterboard
- * PKA test report available on request

Test	Description	R _{tw}
1. Wilkinson Murray (Ref: PD 200813)	QuietWave sandwiched between 2 x 13 mm plasterboard	38 (Ctr-2)
2. Sebastian Giglio (Ref: 204335/D01a)	2 x 13 mm plasterboard panels	33 (Ctr-2)
3. PKA Acoustic Consulting (Ref: 204 202 R01)	148 mm Staggered stud wall with QuietWave sandwiched between 2 x 13 mm plasterboard on both sides of the studs	63 (Ctr-7)



Global GreenTag^{Cert™} GreenRate Level C Certification of QuietWave® BioFoam

QuietWave® BioFoam is a patented biologically derived, flexible noise barrier and vibration damping material used in commercial and residential applications as an acoustic noise barrier for walls, ceilings, partitions, flooring, furniture and pipe lagging.