DARCO INDUSTRIES

acoustica®
the quiet Australian

QuietWave®

Acoustic Plasterboard Barrier



www.darco.com.au

BARRIER

QuietWave®

acoustic plasterboard barrier

QuietWave® acoustic plasterboard barrier is the most economic 6-star acoustic wall system available. The thinnest and lightest way to achieve the highest acoustic performance, QuietWave® is a class above minimum BCA requirements.

Acoustica's QuietWave® noise barrier isolates noise and dampens sound vibration increasing the sound transmission loss.

QuietWave® viscoelastic noise barrier parallels the theoretical performance of the ideal limp mass barrier.

The development of QuietWave® 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

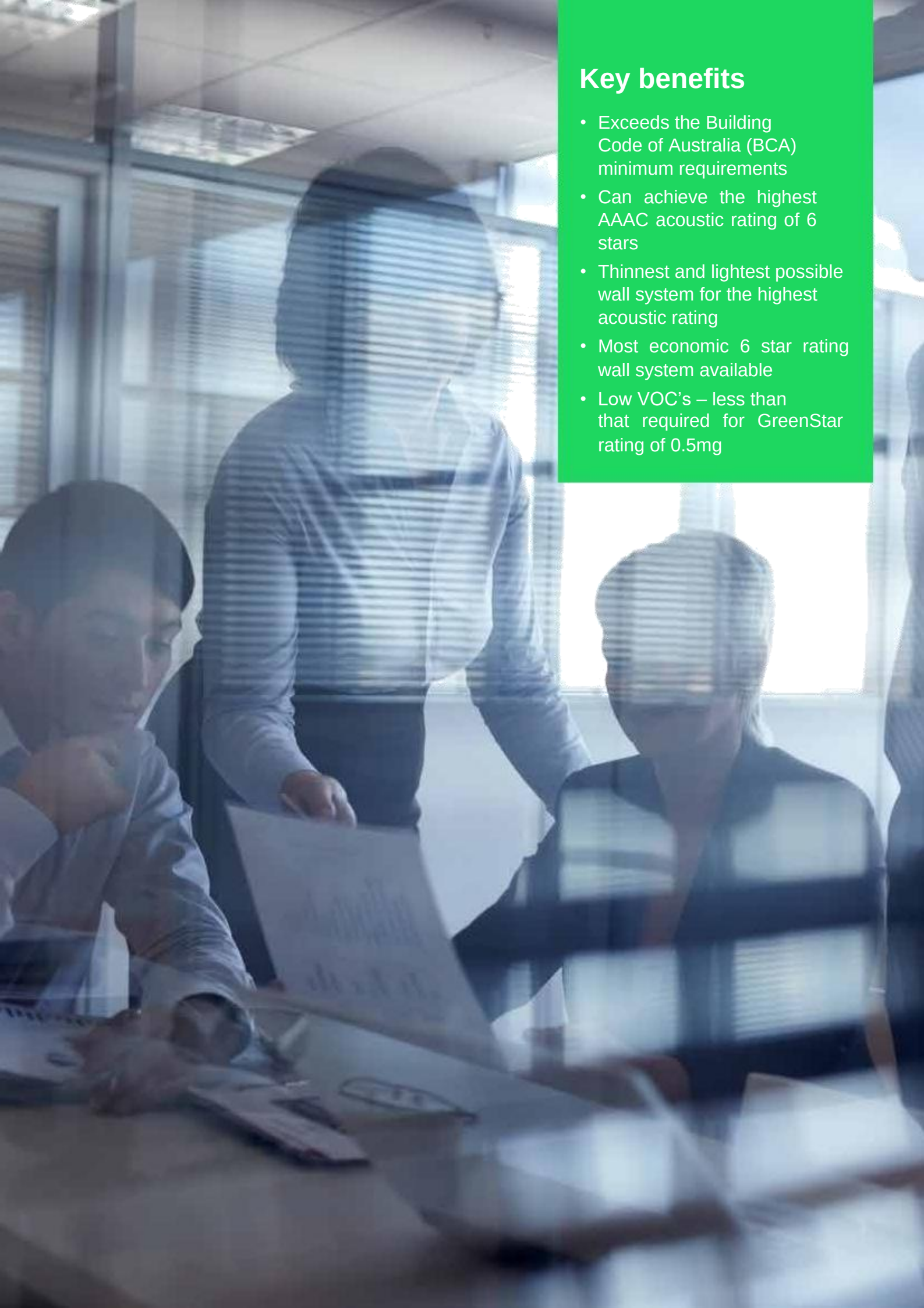
Our tests show that when QuietWave® is sandwiched between two layers of 13mm Fyrchek plasterboard, the Sound Transmission Loss (STL) achieves is equivalent to 5 layers of the same plasterboard.

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



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



Key benefits

- Exceeds the Building Code of Australia (BCA) minimum requirements
- Can achieve the highest AAAC acoustic rating of 6 stars
- Thinnest and lightest possible wall system for the highest acoustic rating
- Most economic 6 star rating wall system available
- Low VOC’s – less than that required for GreenStar rating of 0.5mg

Acoustic Performance Index*

When Acoustica's concept of Acoustic Performance Index is applied to the QuietWave® 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 148mm wide and has an acoustic performance that can **ONLY** be matched by the best wall system at 280-300mm wide.

QuietWave is available in rolls of 1.3m x 5.4m

Comparison Transmission Loss Test Results



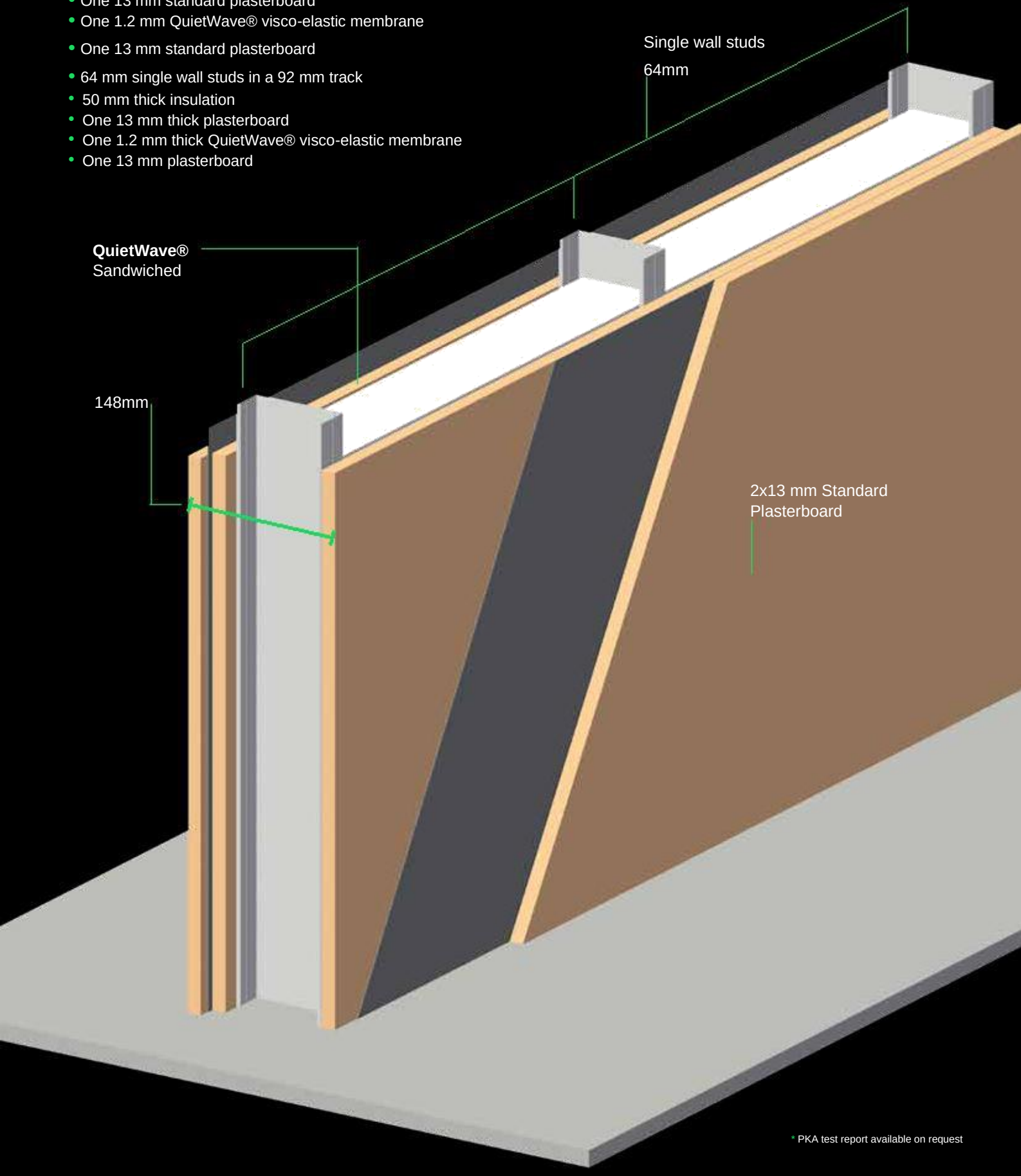
Test	Description	Rw
1. Wilkinson Murray (Ref: PD 200813)	QuietWave sandwiched between 2 x 13 mm plasterboard	38 (Ctr-2)
2. Sebastian Giglio (Ref: 204335/D01a)	2 x 13 mm plasterboard panels	33 (Ctr-2)
3. PKA Acoustic Consulting (Ref: 204 202 R01)	148 mm Staggered stud wall with QuietWave sandwiched between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

*Comments by PKA Acoustic.

One of Acoustica's high performance partition walls

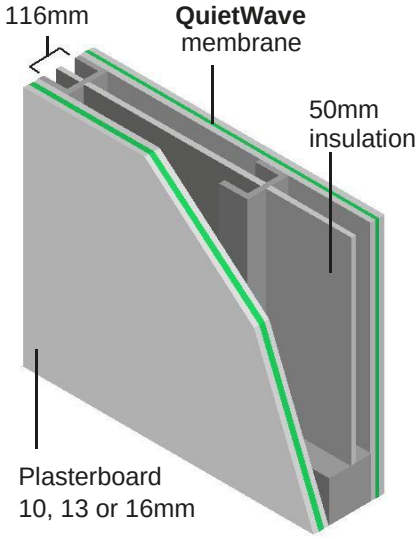
Acoustica's QuietWave wall construction system that achieves Rw + Ctr = 56*

- One 13 mm standard plasterboard
- One 1.2 mm QuietWave® visco-elastic membrane
- One 13 mm standard plasterboard
- 64 mm single wall 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

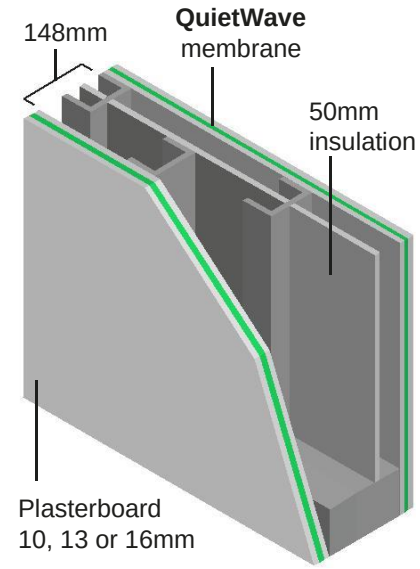


* PKA test report available on request

Single Stud Construction - 64mm Cavity	Rw	Ctr	Rw+Ctr
1. 4 x 13 mm std plasterboard + QuietWave™ = 40 kg/m2	59	-7	52
2. 4 x 13 mm Fyrchek + QuietWave™ = 48 kg/m2	60	-6	54
3. 4 x 16 mm Fyrchek + QuietWave™ = 56 kg/m2	62	-6	56

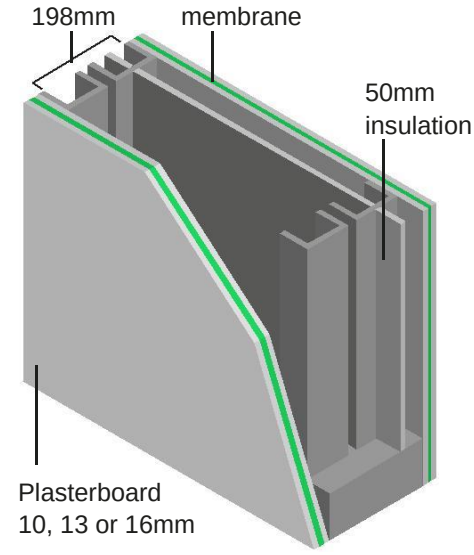


Staggered Stud Construction - 90mm Cavity	Rw	Ctr	Rw+Ctr
1. 4 x 13 mm std plasterboard + QuietWave™ = 40 kg/m2	61	-7	55
2. 4 x 13 mm Fyrchek + QuietWave™ = 48 kg/m2	63	-6	57
3. 4 x 16 mm Fyrchek + QuietWave™ = 56 kg/m2	64	-6	58



QuietWave

Double Stud Construction - 148mm Cavity	Rw	Ctr	Rw+Ctr
1. 4 x 13 mm std plasterboard + QuietWave™ = 40 kg/m2	64	-7	57
2. 4 x 13 mm Fyrchek + QuietWave™ = 48 kg/m2	66	-6	60
3. 4 x 16 mm Fyrchek + QuietWave™ = 56 kg/m2	67	-6	61



DARCO INDUSTRIES

TRUST THE INDUSTRIAL INSULATION MATERIALS EXPERTS

Built on Trust, Focused on Quality

CORE CAPABILITIES & SOLUTIONS

- Thermal Insulation & Lagging Systems
- Acoustic & Noise Control Materials
- High-Temperature Textiles, Ropes & Seals
- Fire Protection Blankets, Curtains & Sleeves

ISO Quality Standards

Defense & Marine Grade

Industrial & Mining Rated

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