

## TECH DATA

### Benefits

- 4-in-1 plasterboard simplifies ordering, delivery and installation
- High resistance to incidental damage, easy to repair and maintain
- Meets the requirements for fire and water resistant applications
- Reduces the transfer of sound between rooms
- Certified for use in Green Star projects



QuadShield 4-in-1 plasterboard for impact, fire, water resistance and sound insulation properties.

**QuadShield** 4-in-1 plasterboard incorporating impact, water, fire resistance and sound insulation properties suitable for multi-performance applications. Formulated to resist fire and water, it is reinforced with a continuous fibreglass mesh embedded in a high density gypsum core for impact resistance.

### Product Information

| SHEET SIZE                        | THICKNESS (mm)   | WIDTH (mm)   | LENGTH (mm)   | WEIGHT* (kg/m <sup>2</sup> ) |
|-----------------------------------|--|--------------|---|------------------------------|
|                                   | 13   | 1200<br>1350 | Lengths up to 4200<br>(minimum order quantity and lead times apply) | 11.7                         |
| <b>FIRE HAZARD PROPERTIES</b>     | Group 1 material according to the requirements of BCA Section C1.10 Fire Hazard Properties<br>Average Specific Extinction Area < 250 m <sup>2</sup> /kg as required by BCA Specification C1.10a, Clause 3(c)<br>Group 1S according to NZBC Performance Clause 3.4(a) |              |   |                              |
| <b>COMBUSTIBILITY</b>             | Classified as non-combustible according to the BCA Section C1.12   |              |   |                              |
| <b>VOLATILE ORGANIC COMPOUNDS</b> | Less than 0.5 mg/m <sup>3</sup> TVOC   |              |   |                              |
| <b>HAZARDS IDENTIFICATION</b>     | Not classified as hazardous according to the criteria of NOHSC Australia   |              |   |                              |

\* Weights indicated are nominal

### Application





QuadShield can be used in a wide range of commercial wall, ceiling and specialty systems where impact, fire and water resistance as well as sound insulation are required, e.g. hospital wards and bathrooms in commercial buildings.

QuadShield can be used within systems that require certified plasterboard to achieve 100% points in the relevant categories for Green Star projects.



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### Performance

-  **Impact**  
Great all-round impact resistance with reinforcing fibreglass mesh.
-  **Water**  
Meets the requirements of AS/NZS 2588 for water resistant plasterboard.
-  **Fire**  
Achieves up to 180 minutes Fire Rating.
-  **Sound**  
High density core for improved acoustic performance.



#### Impact

When impact tested and compared with fibre cement and plasterboard, QuadShield displayed a better all-round performance for the following:

- Best tested soft body impact performance with a 500mm bag drop height before failure.
- The least damage from a 50mm steel ball dropped 2400mm.
- Only 0.7mm indentation from a 50mm steel ball dropped 1200mm.

#### Water

QuadShield is manufactured to high internal standards that meet or exceed the requirements for water resistant gypsum board within AS/NZS 2588, *Gypsum Plasterboard*.

The installation of QuadShield in accordance with Knauf wet area installation instructions complies with the requirements from AS 3740 and the BCA for wet areas.

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#### Fire

QuadShield can substitute 13mm FireShield in any system to achieve 30 minutes to 180 minutes Fire Rating in accordance with AS/NZS 1530.4.

#### Sound

QuadShield has good sound insulation performance and can substitute 13mm FireShield in any system and maintain the acoustic performance.

#### Installation

QuadShield is installed using the 'Fastener Only Method' for all systems requiring a Fire Rating.

To maintain fire and acoustic integrity:

- Use BindEx Fire and Acoustic Sealant on all gaps and around perimeter.
- Use Paper Tape with either two coats of MastaBase/MastaLongset or three coats of Mastalite.

Refer to the latest Knauf Technical Manual on the website for complete installation instructions.

#### Sustainable



QuadShield has been independently certified by Global GreenTag to GreenRate Level A, recognised by the GBCA for Materials and VOC credits and by the NZGBC.

Knauf offers supporting documentation for sustainable building projects including product stewardship, VOC certificates, OnBoard – Design for Disassembly as well as information regarding Sustainability Policy and environmental management.

Green Star compliance documents are available at [www.knaufplasterboard.com.au/sustainability-documents](http://www.knaufplasterboard.com.au/sustainability-documents)

## TECH DATA

### Impact Test Results\*

Figure 1. FIRST DAMAGE ON FACE OF WALL LINING

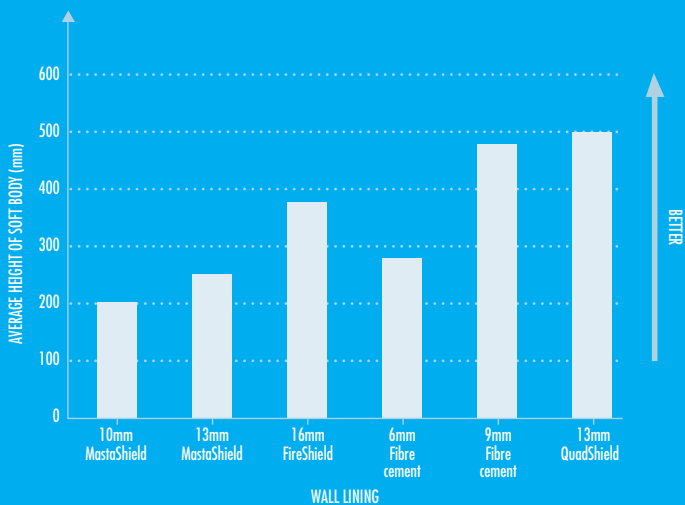
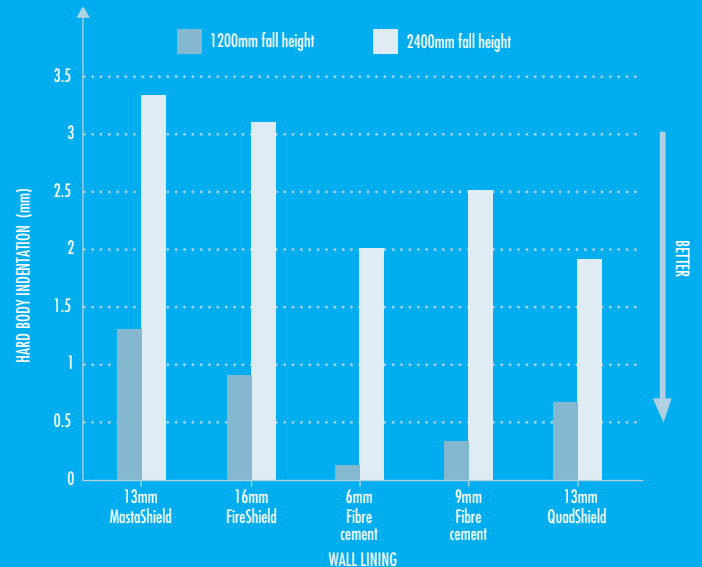


Figure 2. INDENTATION ON WALL LINING



\* Impact testing conducted by a registered testing authority

Soft body tests (Figure 1) were carried out by swinging a sand filled bag into a test wall in accordance with BCA Specification C1.8. Soft body tests simulate the kind of loads applied to a wall system by the human body.

Hard body tests (Figure 2) were carried out by dropping a steel ball from different heights and measuring the depth of the indentation caused by the impact. Hard body tests simulate loads such as a trolley or swinging a heavy suitcase.

### Quick Reference Systems

| SYSTEM | FRL (minutes) | SYSTEM DESCRIPTION  | ACOUSTICS (Rw) |
|--------|---------------|---|----------------|
| LSW60  | -/60/60       | 1 layer of 13mm QuadShield on both sides of a 92mm steel stud with 50mm glasswool insulation  | 47             |
| LSW61  | -/90/90       | 1 layer of 13mm QuadShield on one side and 2 layers of 13mm QuadShield on the other side with a 92mm steel stud and 50mm glasswool insulation | 52             |
| LSW62  | -/120/120     | 2 layers of 13mm QuadShield on both sides of a 92mm steel stud with 50mm glasswool insulation   | 56             |



Quality ISO 9001

SAI GLOBAL

QuadShield is manufactured in Australia in accordance with quality systems certified as complying with AS/NZS ISO 9001:2008 and meets the requirements of AS/NZS 2588, *Gypsum Plasterboard*.

### Warranty

Knauf's products are guaranteed by a 10 Year Warranty.

For details visit

[knaufplasterboard.com.au](http://knaufplasterboard.com.au)

[knaufplasterboard.co.nz](http://knaufplasterboard.co.nz)

### Technical Advice

AU **1300 724 505**

NZ **0800 884 326**