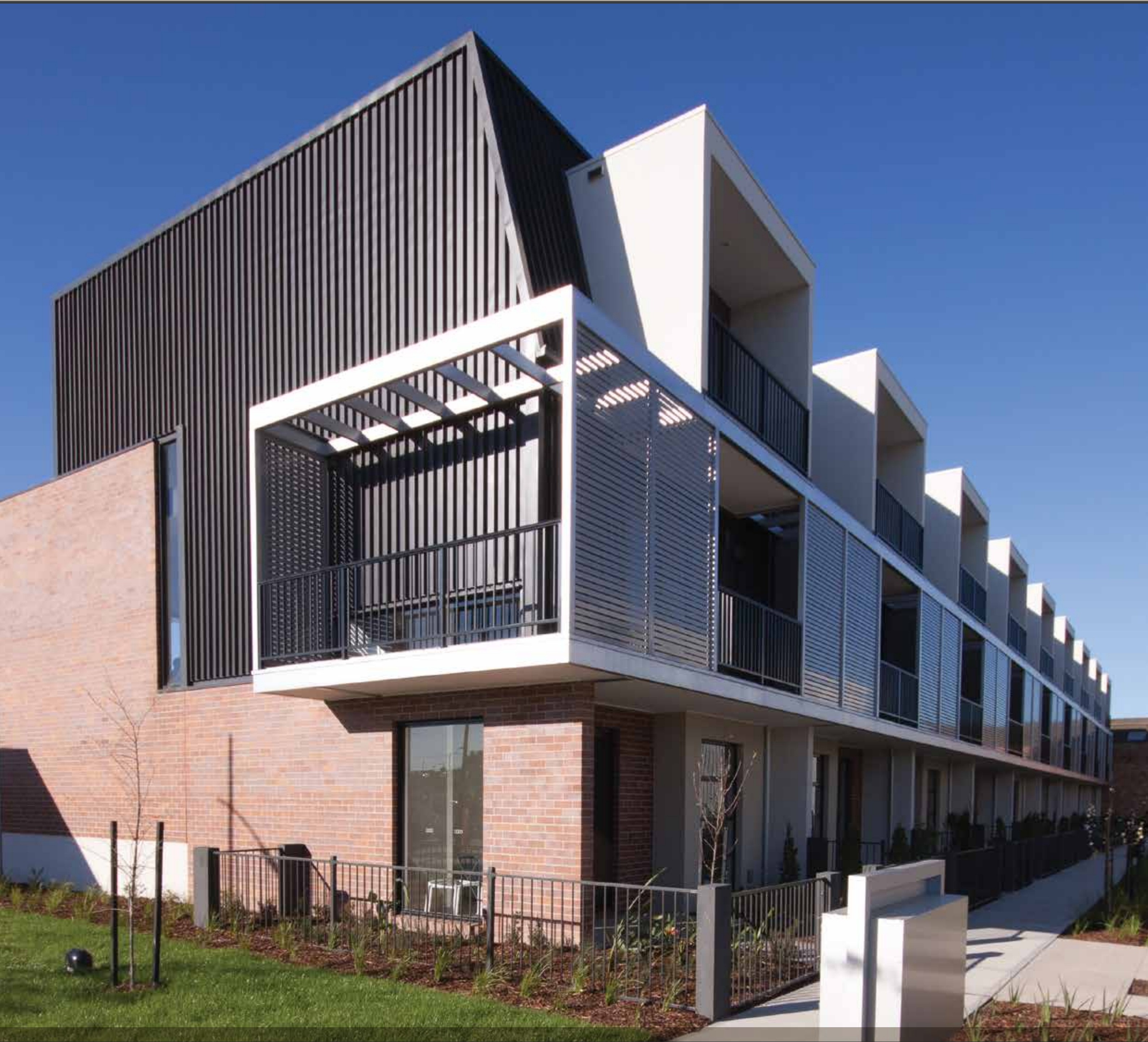

Commercial Clay Commons and Technical Data

NEW SOUTH WALES

PGH BRICKS & PAVERS™

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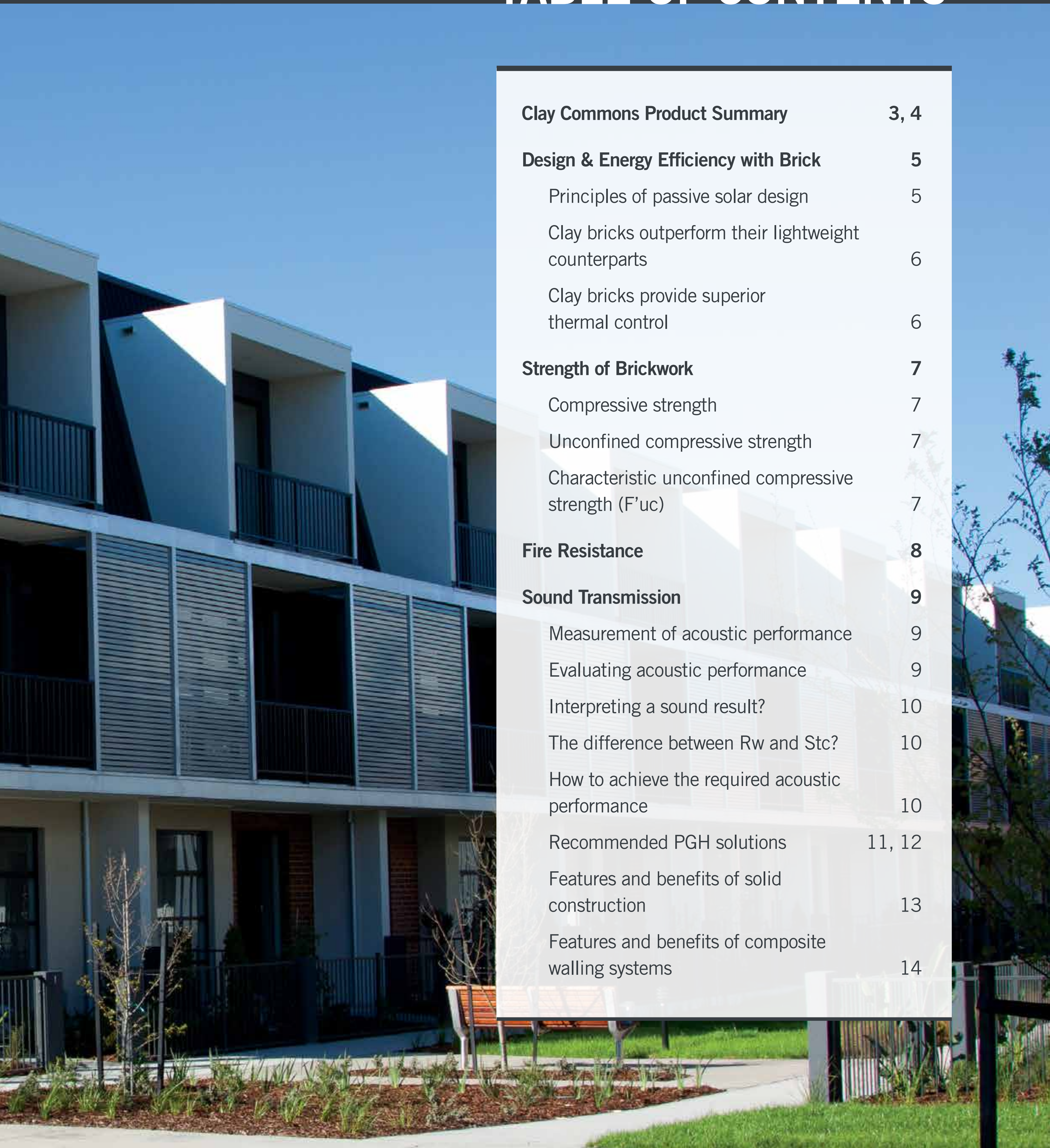


CLAY COMMONS PRODUCT SUMMARY

	STANDARD COMMONS CECIL PARK						
Product	**Super Common**	**Scratchcoat Common**	**Smoothface Common**	**Schooner**	**Exposure Grade Schooner**	**Universal Common**	**Exposure Grade Universal Common**
							
Code	19421* 21504^	87109* 82394^	87110* 81508^	112184* 112183* 20180^	132753* 132754^	38196* 79537^	119728
Factory	Cecil Park	Cecil Park	Cecil Park	Cecil Park	Cecil Park	Cecil Park	Cecil Park
Working Size LxWxH (mm)	230x110x76	230x110x76	230x110x76	230x110x119	230x110x119	230x110x76	230x110x76
Pack Quantity	336* per pallet 470^ per pallet	336* per pallet 470^ per pallet	336* per pallet 470^ per pallet	196* per pallet 224* per pallet 310^ per pallet	196* per pallet 224* per pallet	336* per pallet 470^ per pallet	336* per pallet
Average Weight per Unit (kg)	2.7	2.7	2.7	4.3	4.3	2.7	2.7
Bricks per square metre	49	49	49	33	33	49	49
Dimensional Category	DW1	DW1	DW1	DW1	DW1	DW1	DW1
Salt Attack Resistance Category	GP	GP	GP	GP	EXP	GP	EXP
Void Volume	< 30%	< 30%	< 30%	< 30%	< 30%	< 30%	< 30%
Average Unconfined Compressive Strength (MPa)	20	20	20	20	20	20	20
Characteristic Unconfined Compressive Strength (MPa f'uc)	> 15	> 15	> 15	> 20	> 20	> 15	> 20
FRL Unrendered	90/90/90	90/90/90	90/90/90	90/90/90	90/90/90	90/90/90	90/90/90
FRL Rendered	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120
Wall Density (kg/m²)	176.4	176.4	176.4	171.6	171.6	176.4	176.4
Application	Load-bearing – bagged walls, footings, piers	Load-bearing – rendered walls	Load-bearing – Moroka-type coatings, bagged walls, footings, piers	Load-bearing – rendered or bagged walls, footings, piers	Load-bearing – rendered or bagged walls, footings, piers in coastal or saline environments	Load-bearing – Moroka type coated on bagged walls, footings, piers	Load-bearing – Moroka- type coated on bagged walls, footings, piers in coastal or saline environments
Finish	Wirecut 1 face 1 header	Scratched 1 face 1 header	Smooth 1 face 2 headers	Wirecut 1 face 2 headers	Wirecut 1 face 2 headers	Smooth/Wirecut 1 face 1 header	Smooth/Wirecut 1 face 1 header

FRLs shown in the table are test results where the structural adequacy is specific to a 3 metre high wall restrained on all 4 sides. The design of fire rated walls should be checked by a qualified structural engineer. All specifications are nominal.

* Available from Cecil Park
^ Confirm availability from Cecil Park

As one of Australia's largest and most innovative brick manufacturers, PGH Bricks & Pavers™ offers a wide range of commons to meet your design and construction needs.

STANDARD COMMONS			**HIGH PERFORMANCE COMMONS**			
OXLEY	SCHOFIELDS		SCHOFIELDS			
Presto Common	**Universal Common**	**Exposure Grade Universal Common**	**Ultra Common**	**Ultra Schooner**	**Ultra Barrier 76**	**Ultra Barrier 119**
						
19641	19814	39361	36705	36704	37095	36916
Oxley	Schofields	Schofields	Schofields	Schofields	Schofields	Schofields
230x110x162	230x110x76	230x110x76	230x110x76	230x110x119	230x140x76	230x140x119
225 strapped	380 strapped	380 strapped	380 strapped	230 strapped	280 strapped	165 strapped
5.5	3.0	2.65	3.0	4.7	4.3	6.6
25	49	49	49	33	49	33
DW1	DW1	DW1	DW1	DW1	DW1	DW1
EXP	GP	EXP	GP	GP	GP	GP
< 30%	< 30%	< 30%	< 25%	< 25%	< 16%	< 16%
25	25	25	30	30	40	40
> 20	> 20	> 20	> 25	> 25	> 30	> 30
90/90/90	90/90/90	90/90/90	90/90/90	90/90/90	240/120/120	240/120/120
120/120/120	120/120/120	120/120/120	120/120/120	120/120/120	240/120/120	240/120/120
169.25	159.25	159.25	186.2	178.2	240.1	247.5
Load-bearing – rendered walls	Load-bearing – bagged or painted walls	Load-bearing – rendered or painted walls in coastal or saline environments	High strength load-bearing – rendered internal walls dividing habitable to common areas	High strength load-bearing– rendered internal walls dividing habitable to common areas	High strength load-bearing – rendered internal walls dividing dry-to-dry and wet-to-wet areas	High strength load-bearing – rendered internal walls dividing dry-to-dry and wet-to-wet areas
Wirecut 2 faces 2 headers	Smooth/Wirecut 1 face 1 header	Smooth/Wirecut 1 face 1 header	Wirecut 2 faces 2 headers	Wirecut 2 faces 2 headers	Wirecut 2 faces 2 headers	Wirecut 2 faces 2 headers

PGH Bricks & Pavers™ reserve the right to change specifications without notice. Check our website for the most up-to-date result.
Product testing is carried out in our PGH NATA accredited laboratory (accredited to AS/NZS 4455 & AS/NZS 4456) and by the CSIRO and other independent NATA accredited laboratories.

Salt Attack Resistance Category
EXP – Exposure Grade Bricks GP – General Purpose Bricks

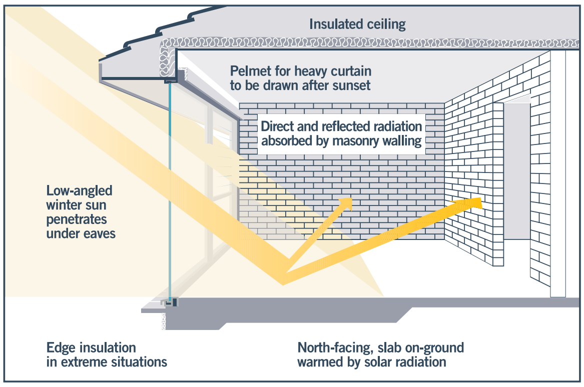
DESIGN & ENERGY EFFICIENCY WITH BRICK

Bricks are an essential part of energy efficient building design. The key reason for this, is that bricks provide thermal mass when used in a building. This thermal mass is a key part of passive design, a proven method of keeping your home at a comfortable temperature all year round and reducing the need for heating and cooling devices, which in turn decreases electricity loads, providing cost savings.

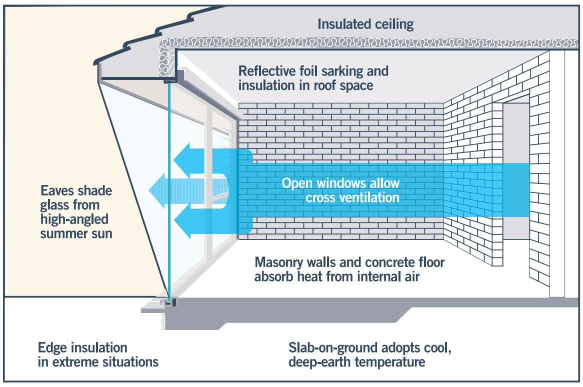
According to the Department of Climate Change and Energy Efficiency, "Thermal mass acts as a thermal battery. During summer, it absorbs heat, keeping the house comfortable. In winter, the same thermal mass can store the heat from the sun or heaters to release it at night, helping the home stay warm."[1]

Principles of passive solar design

WINTER



SUMMER



Brickwork can be very energy efficient. When designing a house to be cool in summer and warm in winter, the wall material as well as other factors need to be taken into account. There are five key passive design features:

Orientation:
Placement of the house in relation to the sun.

Insulation:
A wall's ability to isolate temperature.

Climate:
The maximum day-time and minimum night-time temperatures (diurnal range). Thermal mass is most appropriate in climates with a large diurnal temperature range.

Thermal Mass:
Heavy-weight wall materials slow the passage of heat through a wall, a process called 'thermal lag'. And, the easiest way to get this heavy mass into walls is by using brickwork. The heavier the brick, the higher its thermal value.

Ventilation:
Air flow through the house.

Tailoring these passive design features to each climate is important. Think Brick Australia has put together a Climate Design Wizard that provides sustainable design strategies for designing ecologically sustainable buildings for the unique climatic conditions within Australia.

With many new building products entering the market, it's important to consider what will be best for the long term sustainability of building designs and the environment and what will minimise energy usage after installation.

SUSTAINABLE LIVING BUILD BETTER WITH BRICK

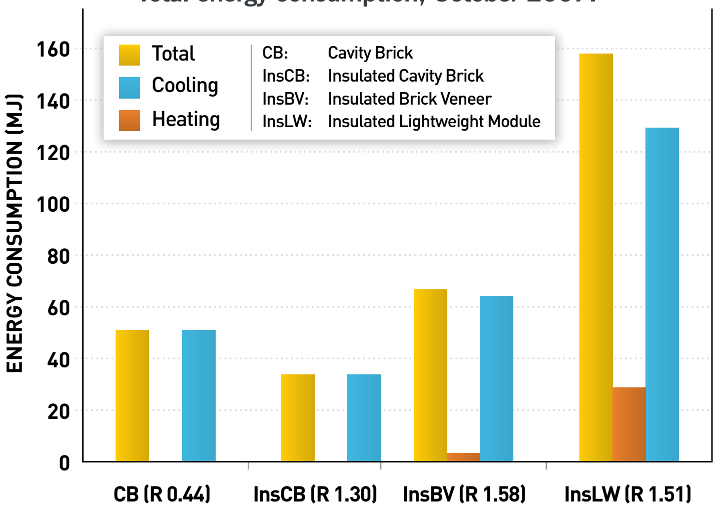
Clay bricks outperform their lightweight counterparts

In Australia, a significant proportion of the end energy usage in residential buildings is used for space heating and cooling.[2] Research findings from an eight-year thermal research program on masonry housing, conducted by Think Brick Australia in conjunction with the Faculty of Engineering and the Built Environment at the University of Newcastle, found that clay bricks outperformed their lightweight counterparts in relation to thermal performance, providing superior, energy efficient environments for people to live, work and play in.[3]

The thermal research findings concluded that the lightweight building was the worst performing in all seasons, brick veneer performed better than lightweight materials and insulated cavity brick performed the best. It also showed that the R-value is not the sole predictor of thermal performance and that there is no correlation between the R-value of a wall and energy usage. (R-value: is a measure of thermal resistance used in the building and construction industry.)

The graph right shows that the insulated lightweight module (R 1.51), with over three times the R-value of cavity brick (R 0.44), used over three times the energy to maintain the temperature in the comfort zone. This data shows a clear difference between clay bricks and lightweight products with insulated cavity brick performing the best in relation to energy efficiency in a temperate climate.

Total energy consumption, October 2007.[3]

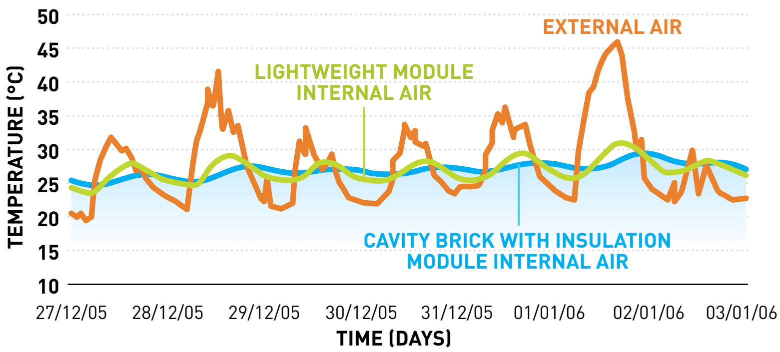


Clay bricks provide superior thermal control

This research also found that insulated lightweight buildings exhibit greater variations in internal temperature and minimal thermal lag, resulting in daily temperature swings of more than twice that of insulated cavity brick dwellings during hot conditions.[3]

The graph right shows that the lightweight module responds directly to the external environment with a rapid increase and reduction in temperature due to its low thermal mass, unlike insulated cavity brick. The lightweight module exhibited no properties with the potential to assist in maintaining adequate thermal comfort. Clay bricks have always been known for their thermal comfort properties and this research confirms this.

External and internal air temperatures for lightweight and insulated cavity brick modules, January 2006.[3]



References:

1. www.yourhome.gov.au/technical/pdf/TechManual_4th_edition2011.pdf (pg.114)
2. Australian Residential Building Sector Greenhouse Gas Emissions 1990–2010, Australian Greenhouse Office, 1999.
3. 'Energy Efficiency and the Environment – The Case for Clay Brick – Edition 4', Research conducted by Think Brick Australia in conjunction with the Faculty of Engineering and the Built Environment at the University of Newcastle, 2009. A Study of the Thermal Performance of Australian Housing is the full report. www.thinkbrick.com.au/energy-efficiency-using-brick-and-the-environment

STRENGTH OF BRICKWORK

Brick strength is defined as resistance to load per unit area and is expressed in megapascals (MPa). PGH™ offers a range of bricks that comply with strength requirements to optimise project, structural and cost performance.

Compressive Strength

It is measured according to AS4456.4 – Determining Compressive Strength of Masonry Units. Individually crushing 10 bricks gives the compressive strength of each brick and the mean compressive strength of the lot. Whilst these figures are not used in masonry design, they are used to calculate Unconfined Compressive Strength.

Unconfined Compressive Strength

Unconfined compressive strength is a calculated number based on the compressive strength. The test method involves subjecting the individual unit to increasing load by compressing it between two metal platens, which is then multiplied by a factor depending on the height of the brick. The resulting number is called the unconfined compressive strength and reflects the performance of the brick in a wall. Whilst this figure is not used in masonry design, it is used to calculate Characteristic Unconfined Compressive Strength.

Characteristic Unconfined Compressive Strength (f'uc)

A batch of bricks has a range of strengths that would usually follow a normal distribution and which contribute to the strength of the entire wall. Importantly, the weakest brick does not determine the strength of the wall. To ensure the safe strength of the wall, engineers use characteristic unconfined compressive strength in design masonry calculations. This is the strength 95% of the bricks will exceed and is typically 0.86 times the lowest unconfined compressive strength found when measuring the compressive strengths of the individual 10 units.

PGH Bricks & Pavers™ provides Characteristic Unconfined Compressive Strength details for Technical Specifications (see www.pghbricks.com.au).

The design characteristic compressive strength of masonry (f'm as denoted by AS3700) in a wall is generally a function of the height of the structure and the spacing of the load-bearing elements (the walls). Everything else being equal, the taller the structure and the larger the spacing between walls, the greater the compressive strength required.

The compressive strength requirements also vary for different levels within the same structure. Whilst the walls on the ground floor must bear the load of all the floors above plus the roof, the walls on the top floor must only carry the load of the roof itself.

PGH™ have specific brick series' to meet strength requirements as follows:

- **f'15 Series** – characteristic unconfined compressive strength of 15MPa is generally suitable for load-bearing walls carrying up to 3 floors.
- **f'20 Series** – characteristic unconfined compressive strength of 20MPa is generally suitable for ground level load-bearing walls carrying 4 floors.
- **Ultra™ Series** – characteristic unconfined compressive strength of 30MPa is generally suitable for load-bearing walls carrying up to 6 floors.

For example: A 5-storey building with the same footprint for each floor may use the PGH Ultra™ series for the first and second floor and the PGH f'15 series for the remaining levels (assuming the acoustic requirements are still satisfied).

FIRE RESISTANCE

Fire resistance levels (FRLs) are specified in the Building Code of Australia (BCA). This system provides an accurate method of predicting the ability of a wall to maintain its strength in a fire and to resist the spread of the fire. The FRL specifies the fire resistance periods (FRP) for structural adequacy, integrity and insulation.

There are three components to fire resistance levels which are expressed in minutes.

1. **Structural Adequacy:** the ability of a wall to continue to perform its structural function for the fire resistance period (FRP).
2. **Integrity:** the ability of a wall to maintain its continuity and prevent the passage of flames and hot gases through cracks in the wall during the FRP.
3. **Insulation:** the ability of the wall to provide sufficient insulation such that the side of the wall away from the fire does not exceed a pre–defined temperature during the rated period. At this temperature (a rise of 140°C over the ambient temperature or a maximum of 180°C) surface finishes and furnishings in contact with or near the wall may combust.

A fire resistance level is therefore expressed as a triple rating, for example 90/90/90, for each of the structural adequacy, integrity and insulation components respectively.

FRLs can be determined from AS 3700 (Masonry Structures) or by testing in accordance with AS 1530.4.

The FRL of a wall depends not only on the thickness of the wall, but also on its height, length and boundary conditions (ie how it is connected to other building elements).

For further information on Fire Resistance Levels for clay brick walls in accordance with AS 3700, refer to Manual 5 published by the CBPI (www.thinkbrick.com.au).

SOUND TRANSMISSION

With advances in technology (particularly home theatre systems) and consumer's growing demand for peace and harmony, as well as listening pleasure, the need for wall and floor systems offering superior acoustic insulation has grown.

In response to the market, the Building Code of Australia (BCA) sound provisions were amended on the 1st May 2004. Amendments to the BCA apply to New South Wales, the ACT, Tasmania and South Australia. The BCA sound provisions apply to attached Class 1 buildings plus Class 2, 3 and 9c buildings.

Class 1 buildings: Buildings include single dwellings that do not have another dwelling above or below it, such as a stand-alone house or a row of townhouses.

Class 2 buildings: Buildings include buildings that contain two or more sole-occupancy units, such as an apartment unit.

Class 3 buildings: Buildings include residential buildings that contain a number of unrelated persons, such as a guest house or the residential part of a school, hotel, etc.

Class 9c buildings: A building of a public nature, specifically an Aged Care building.

Measurement of Acoustic Performance

Sound or acoustic performance is measured by the weighted sound reduction index (Rw). Rw is a single-number rating of the sound reduction through a wall or other building element. Since the sound reduction may be different at different frequencies, test measurements are subjected to a standard procedure that yields a single number that is about equal to the average sound reduction in the middle of the human hearing range.

Since the human ear does not discern all frequencies in the spectrum, measurement standards have been altered to incorporate correction factors. Correction factors are also used to take into account common noise sources.

There are two types of correction factors:

Ctr = weighted towards low frequency sounds such as traffic, trains, hi-fi systems with sub-woofers. These noise sources are much more distinct and irritating.

C = weighted towards general domestic sounds such as speech, vacuum cleaners, normal television and radio. The reference spectrum for this is fairly flat and is commonly referred to as "pink noise".

The BCA often specifies in terms of Rw + Ctr, where Ctr is a correction factor for low to medium frequency noise. Therefore, the correction factor is used to show how effective a particular wall construction is against those types of noise. The correction factors are negative numbers, so the smaller the number the better. A small number (eg -1) shows that the construction does not have a large performance drop in that sound frequency range.

Evaluating Acoustic Performance

When evaluating the loudness of a sound resulting on the other side (receiver side) of a partition the following process is used:

1. Begin with a reference spectrum (sound source) – loudness measured in dBA
2. Apply (subtract) the transmission loss of the partition
3. Determine the new dBA value on the resultant (receiver) side. The difference between the reference and the resultant values is equivalent to the Rw + Ctr (when the Ctr spectrum is applied as the sound source).

The frequencies considered in the Ctr spectrum have greater levels of energy and are much more difficult to attenuate. Consequently, the BCA has adopted this term when specifying the minimum sound insulation requirements involving habitable areas.

Interpreting a sound result?

An acoustic performance result is expressed in terms of Rw and the correction factors.

For example, a wall might have Rw(C,Ctr) of 55(-1,-5), which means that Rw is 55, C is -1 and Ctr is -5. The BCA often specifies the Rw + Ctr. For this wall the Rw + Ctr will be 55 + (-5) or 55 - 5. So the Rw + Ctr is 50.

The difference between Rw and STC?

Sound transmission class (STC) was a former reference to sound performance requirements which were based on different criteria to that of Rw ratings, and it did not include any correction factors. STC is no longer relevant to sound performance and cannot be used.

How to achieve the required acoustic performance

The sound performance requirements of the BCA can be satisfied by:

- Building a deemed-to-satisfy wall as specified in the BCA
- Demonstrating compliance by lab testing of an exact construction, or
- Demonstrating compliance by field testing.

The deemed-to-satisfy walls are the lowest bound results. Walls built of specific clay bricks may have better performance, as indicated by the manufacturer from individual tests.

PGH Bricks conducts extensive testing of different wall constructions and a large number of acoustic solutions are available to suit your construction. It is important to recognize that bricks from different manufacturers and manufactured in different plants give different results.

The Building Code of Australia (BCA) requires that walls separating sole-occupancy units in Class 1, 2 and 3 buildings are required to have an Rw + Ctr of not less than 50.

In addition, the construction must be discontinuous, if the wall separates a habitable room (living room, dining room, bedroom study and the like) from a wet room (kitchen, bathroom, sanitary compartment or laundry).

Walls in Class 2 or 3 buildings that separate a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like must have an Rw of not less than 50.

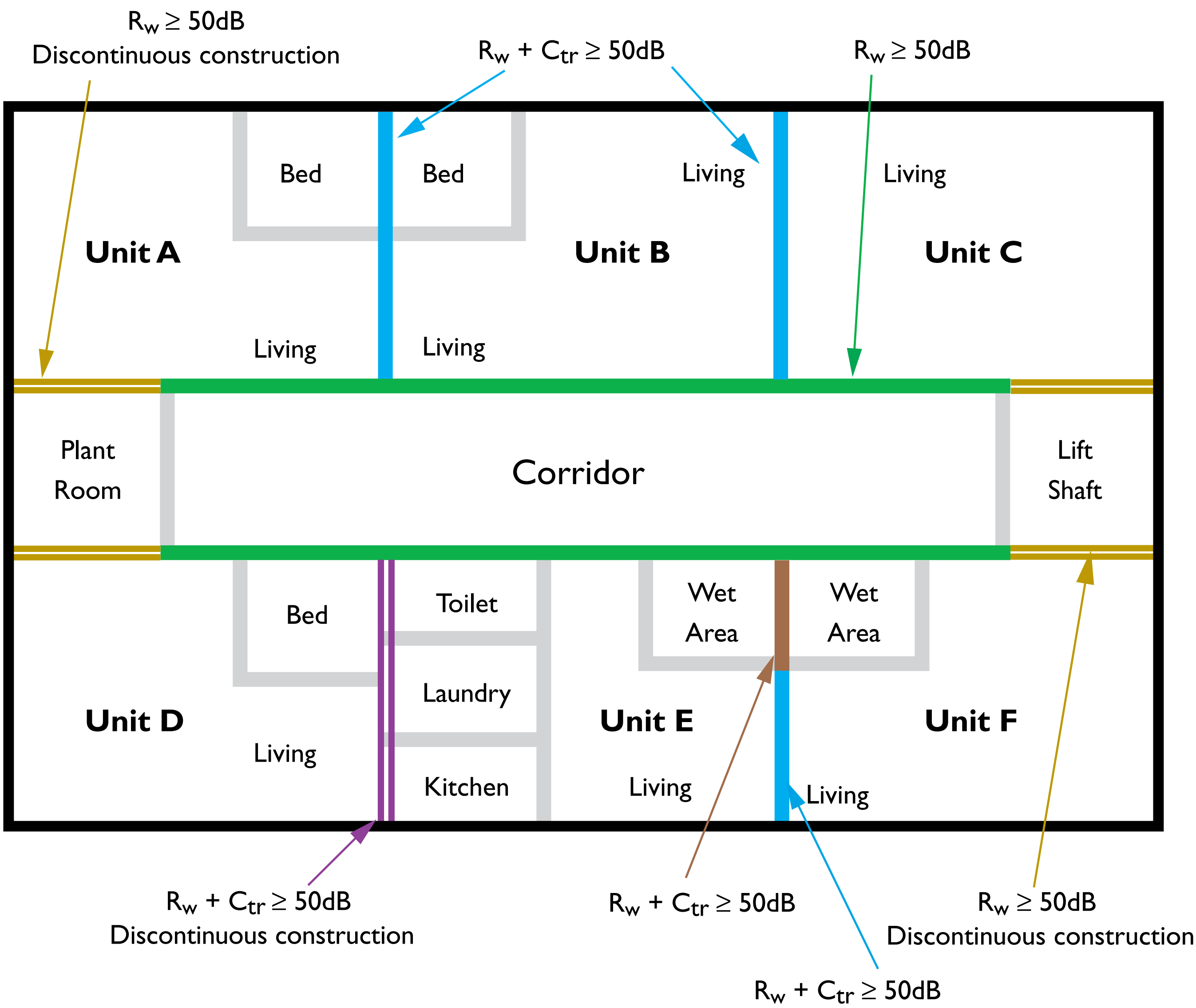
If this wall separates a sole-occupancy unit from a plant room or a lift shaft, the construction must be discontinuous.

Discontinuous construction requires a minimum 20mm cavity between two separate leaves. If wall ties are to be used, they must be resilient wall ties.

SOUND TRANSMISSION

	Recommended PGH Solutions		BCA 'Deemed-to-Comply' Alternative
	Solid Construction	Composite Walling Systems	
Intertenancy – Between habitable areas (dry-to-dry) $R_w + C_{tr} \geq 50dB$ Dry | Dry	**140S** **Wall thickness: 167mm** **Approx. wall mass: 340kg/m²**	**110SS** **Wall thickness: 212mm** **Approx. wall mass: 248kg/m²**	**Two leaves of 110mm clay brick masonry with** (a) a cavity not less than 50mm between leaves; and (b) 13mm cement render on each outside face **Wall thickness: 296mm** **Approx. wall mass: 460kg/m²**
Intertenancy – Between wet areas (wet-to-wet) $R_w + C_{tr} \geq 50dB$ Wet | Wet	**140S** **Wall thickness: 167mm** **Approx. wall mass: 340kg/m²**	**110DS** **Wall thickness: 218/284mm** **Approx. wall mass: 212/253kg/m²**	**Two leaves of 110mm clay brick masonry with** (a) a cavity not less than 50mm between leaves; and (b) 13mm cement render on each outside face **Wall thickness: 296mm** **Approx. wall mass: 460kg/m²**
Intertenancy – Habitable to wet areas (dry-to-wet) $R_w + C_{tr} \geq$ 50dB AND Discontinuous construction* Dry | Wet	**110C110** **Wall thickness: 266/296mm** **Approx. wall mass: 460/501kg/m²**	**110SS** **Wall thickness: 212mm** **Approx. wall mass: 248kg/m²**	**Two leaves of 110mm clay brick masonry with** (a) a cavity not less than 50mm between leaves; and (b) 13mm cement render on each outside face **Wall thickness: 296mm** **Approx. wall mass: 460kg/m²**
Apartment to common stairway, corridor, public lobby or the like; OR areas of different classification $R_w \geq 50dB$ Dry | Stairway Dry | Corridor	**110S** **Wall thickness: 136mm** **Approx. wall mass: 277kg/m²**	**110SS** **Wall thickness: 212mm** **Approx. wall mass: 248kg/m²**	**A single leaf of 220mm clay brick masonry with 13mm cement render on each face** **Wall thickness: 246mm** **Approx. wall mass: 460kg/m²**
Apartment to plant room or lift shaft $R_w \geq$ 50dB AND Discontinuous construction* Dry | Plant/Lift	**110C110** **Wall thickness: 266/296mm** **Approx. wall mass: 460/501kg/m²**	**110SS** **Wall thickness: 212mm** **Approx. wall mass: 248kg/m²**	**Two leaves of 110mm clay brick masonry with** (a) a cavity not less than 50mm between leaves; and (b) 13mm cement render on each outside face **Wall thickness: 296mm** **Approx. wall mass: 460kg/m²**

*Discontinous construction means a wall having a minimum 20mm cavity between 2 separate leaves. Where wall ties are to connect leaves, the ties must be of the resilient type.

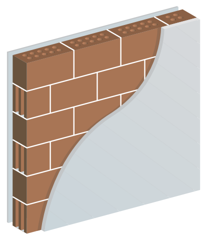


$R_w \geq 50dB$
Discontinuous construction
$R_w + C_{tr} \geq 50dB$
$R_w \geq 50dB$
Bed
Bed
Living
Living
Unit A
Unit B
Unit C
Living
Living
Plant
Room
Corridor
Lift
Shaft
Bed
Toilet
Wet
Area
Wet
Area
Laundry
Unit D
Unit E
Unit F
Living
Kitchen
Living
Living
$R_w + C_{tr} \geq 50dB$
Discontinuous construction
$R_w + C_{tr} \geq 50dB$
$R_w \geq 50dB$
Discontinuous construction
$R_w + C_{tr} \geq 50dB$

SOUND TRANSMISSION

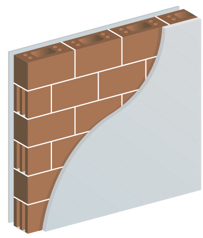
Features and Benefits of Solid Construction

- **Delivers a uniform solid look and feel to both sides of the intertenancy wall**
- **Enables the complete wall system (ready for finishing) to be installed prior to the forming of the slab above**
- **Allows materials to be craned directly to the working level, rather than being loaded through door openings**
- **Additional finishing materials may not be required, as the rendered finish can be applied to all areas**



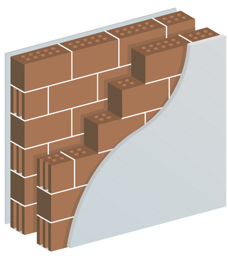
110S	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	48	52	-6	46

- 13mm cement render
- Single leaf 110mm thick PGH Ultra Series clay masonry
- 13mm cement render



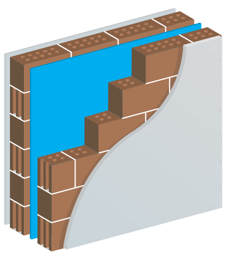
140S	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	51	55	-5	50

- 13mm cement render
- Single leaf 140mm thick PGH Ultra Series clay masonry
- 13mm cement render



110C110	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	53	57	-5	52

- 13mm cement render
- One leaf of 110mm thick PGH Ultra Series day masonry
- 50mm cavity (no ties between the two wall leaves)
- One leaf of 110mm thick PGH Ultra Series clay masonry
- 13mm cement render

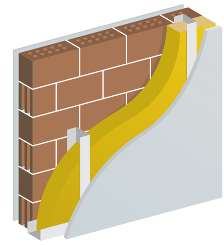


110C110P	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	54	54	-4	50

- 13mm CSR gyprock plasterboard daub adhesive fixed @ 600mm centres
- One leaf of 110mm thick PGH Ultra Series clay masonry
- 40mm cavity with Toritine TBL 10/25 polyester insulation (no ties between the two wall leaves)
- One leaf of 110mm thick PGH Ultra Series clay masonry
- 13mm CSR Gyprock plasterboard daub adhesive fixed @ 600mm centres

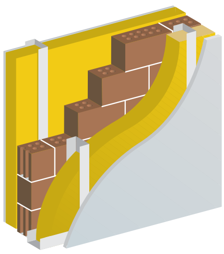
Features and Benefits of Composite Walling Systems

- **Allows services to be installed (in at least one side) without chasing into the structure**
- **Reduces bricklaying work load**
- **Reduces the load on the structure as it involves only a single skin of masonry**



110SS	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	N/A	62	-12	50

- 13mm CSR Gyprock plasterboard daub adhesive fixed @ 600mm centres
- Single leaf 110mm thick PGH Ultra Series clay masonry
- 64mm steel framework spaced 12mm from clay masonry wall
- 75mm CSR Bradford Glasswool insulation*
- 13mm CSR Gyprock plasterboard screw fixed to steel studs



110DS	Rw (bare wall)	Rw (render system)	Ctr Correction	Rw+Cr
	N/A	67	-12	55

- 13mm CSR Gyprock plasterboard daub adhesive fixed @ 600mm centres
- 75mm CSR Bradford Glasswool insulation*
- 64mm steel framework spaced 10mm from clay masonry wall
- Single leaf 110mm thick PGH Ultra Series clay masonry
- 64mm steel framework spaced 10mm from clay masonry wall
- 75mm CSR Bradford Glasswool insulation*
- 13mm CSR Gyprock plasterboard screw fixed to steel studs

*Polyester may be substituted for Glasswool, consult the project acoustic engineer for details

Disclaimer: Acoustic performance for some of the systems has not been tested. The rating is in the opinion of independent acoustic consultants Wilkinson Murray Pty Ltd.

Masonry Specific Notes

- A wall required to have an impact sound insulation rating must have a minimum 20mm cavity between 2 separate leaves and, where wall ties are required to connect the leaves, the ties must be of the resilient type
- Masonry units must be laid with all joints filled solid, including those between the masonry and any adjoining construction

Engineered

Note: The above tables are based on NSW Technical Details
†FRL Fire Rating Level calculated on a 2.7m wall simply supported both sides and rotationally supported top and bottom.
BCA Deemed-to-Satisfy Walls
BCA Volume 1 Amendment 14 Specification F5.2 Table 2 gives deemed-to-satisfy walls for sound insulation for walls separating sole occupancy units.
BCA Volume 2 Amendment 14 Table 3.6.6.2 gives deemed-to-satisfy walls for sound insulation for walls separating two or more Class 1 Buildings. These walls are the same as those in Volume 1 except only walls achieving Rw+Ctr ≥50 are allowed.

DISCLAIMER

PGH™ cannot and does not warrant the strength of any structure comprising its bricks and other components. PGH™ strongly advises users to consult a qualified structural engineer before selecting any masonry products and structural systems. The field performance advice provided in this document is based on typical field de-rating applied to laboratory measured performance data. Independent specialist advice and confirmation should be sought for the specific project with regard to the presence of flanking paths or any other acoustic effects that may affect field performance. Information contained in this document may change without notice.

WARNING INFORMATION

Dust from clay products contains crystalline silica. Repeated inhalation of this dust may cause lung scarring (silicosis) and lung cancer. Do not breathe dust. Wear an approved mask (respirator) if dusty. For further information and a Material Safety Data Sheet, visit www.pghbricks.com.au.

PGH™ is unable to accept any liability for costs incurred as a result of failure or delay in delivering the product.

Further test certificates are available on request. No product is guaranteed to match.

We offer more than just our Commons. PGH Bricks & Pavers have a wide range of face bricks and pavers to choose from. Visit a Monier PGH Selection Centre.

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