

GREY BLOCKS

standard masonry units





AUSTRAL MASONRY

style and function





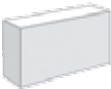

Austral Masonry manufactures a range of masonry bricks and blocks complying with the requirements of the Australian Standard AS/NZS 4455.1: 2008 and are tested according to AS4456: 2003.

Our smooth finished all-purpose range includes solid and cored units, fractions, re-rated blocks, lintels, pilasters, special purpose and shaped units in all popular size formats.


Grey blocks are designed to be painted or rendered as there can be significant colour variation from batch to batch. For face block applications Austral Masonry recommends the GB Masonry Collection of colour masonry products.

Austral Masonry is part of the Brickworks Building Product division. With plants across Queensland including premium GB Masonry and direct links to Austral Bricks, Austral Masonry forms part of Australia's largest and most innovative manufacturer of clay and concrete products.

Block Range 100mm Series








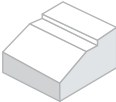



Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f'uc (MPa)
	10.01	Full Hollow	390L x 90W x 190H	144* 144**	9.9* 9.9**	>15
	10.02	Three Quarter	290L x 90W x 190H	240* 240**	7.8* 7.8**	>15
	10.03	Half	190L x 90W x 190H	288* 360**	5.1* 5.0**	>15
	10.25	Corner Return	390L x 90W x 190H x 190	120**	12.9**	>15
	10.31	90mm Solid	390L x 90W x 190H	108**	14.30**	>10
	10.34	Quarter Solid	90L x 90W x 190H	600**	3.3**	>15

Block Range 100mm Half Height Series



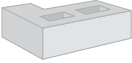
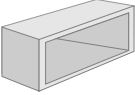
	10.71	Half Height Hollow	390L x 90W x 90H	320**	4.8**	>15
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*Cairns product **Ayr product





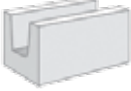

Block Range 150mm Series

Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f'uc (MPa)
	15.01	Full Hollow	390L x 140W x 190H	120* 120**	12.3* 12.3**	>15
	15.02	Three Quarter	290L x 140W x 190H	160* 160**	10.4* 9.1**	>15
	15.03	Half	190L x 140W x 190H	216* 240**	6.6* 6.5**	>15
	15.12	Lintel	390L x 140W x 190H	100**	15.4**	>15
	15.20	Knockout Bond Beam	390L x 140W x 190H	120* 120**	12.3* 12.3**	>15
	15.22	7/8 Closer or Corner Block	340L x 140W x 190H	135**	11.1**	>15
	15.25	Corner Return	390L x 140W x 190H	105* 105**	13.8* 14.9**	>15
	15.38	Sill (Half Height)	190L x 190W x 100H	336**	6.0**	N/A
	15.48	H Block	390L x 140W x 190H	120**	13.0**	>15
	15.738	B/N Sill Block	150L x 100W x 211H	280**	6.1**	NA
	15.739	45° Squint	290L x 140W x 190H	105**	11.14**	>15

Block Range 150mm Half Height Series

Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f _{uc} (MPa)
	15.71	Half Height Hollow	390L x 140W x 90H	240**	6.1**	>15
	15.73	Half Height Half	190L x 140W x 90H	384**	3.2**	>15
	15.81	Half Height Corner Return	390L x 190W x 90H x 140	170**	1.0**	>15
	15.934	Screen Block	390L x 190W x 140H	108**	12.3**	NA

Block Range 200mm Series

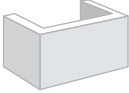



	20.01	Full Hollow	390L x 190W x 190H	90* 90**	14.0* 14.8**	>15
	20.02	Three Quarter	290L x 190W x 190H	120* 120**	11.8* 11.1**	>15
	20.03	Half	190L x 190W x 190H	180* 144**	8.6* 8.5**	>15
	20.04 (10.03)	Quarter	90L x 90W x 190H	288* 360**	5.6**	>15
	20.12	Lintel	390L x 190W x 190H	90* 72**	19.8**	>15
	20.13	Half Lintel	190L x 190W x 190H	180* 144**	9.1**	>15

*Cairns product **Ayr product




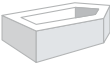
Block Range 200mm Series

Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f'uc (MPa)
	20.16	Single Core Lintel	390L x 190W x 190H	90* 72**	17.6* 17.4**	>15
	20.18	Deep Lintel	190L x 190W x 390H	90**	14.3**	>15
	20.19	3/4 Lintel	190L x 190W x 290H	120**	11.6**	>15
	20.20	Knockout Bond Beam	390L x 190W x 190	90* 90**	13.5* 13.7**	>15
	20.21	Corner Knockout Bond Beam	390L x 190W x 190	90* 90**	16.2* 14.7**	>15
	20.22	7/8 Closer	340L x 190W x 190	90* 90**	13.5* 13.9**	>15
	20.31	Solid	390L x 190W x 190	54**	30.3**	>10
	20.38	Half Height Flush Sill	190L x 95W x 115H x 30	156**	8.3**	>15
	20.40	Sill	190L x 78W x 102H	260**	7.2**	>15
	20.42	Channel	390L x 190W x 190	90* 90**	16.7* 13.9**	>15
	20.48	H Block	390L x 190W x 190	90* 90**	13.4* 13.7**	>15
	20.60	Engaged Pier	300L x 360W x 190H	60**	20.0**	>15

Block Range 200mm Series



Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f'uc (MPa)
	20.61	C Block Clean Out	390L x 190W x 190H	90* 90**	14.0* 14.3**	>15
	20.739	45° Squint	200L x 190W x 190H	90**	12.2**	>15
	20.925	Single Core	390L x 190W x 190H	90* 90**	16.7**	>15
	50.31	190 Patio Tiles	390L x 190W x 40H	216**	6.3**	N/A

Block Range 200mm Half Height Series

	20.71	Half Height Hollow	390L x 190W x 90H	180* 180**	7.3* 7.1**	>15
	20.724	Sliding Door Sill	190L x 190W x 190H	144**	8.9**	NA
	20.73	Half Height Half	190L x 190W x 90H	360* 360**	4.1* 4.0**	>15
	20.749	Half Height Squint	210L x 190W x 90H	220**	5.6**	>15

*Cairns product **Ayr product

Block Range 300mm Series

Product	Product Code	Product Description	Size (mm)	Units Per Pallet	Approximate Weight (kg)	f 'uc (MPa)
	30.01	Full Hollow	390L x 290W x 190H	60**	21.7**	>15
	30.02	Three Quarter	290L x 290W x 190H	80* 80**	17.2* 17.0**	>15
	30.04 (10.02)	Quarter	90L x 290W x 190H	240* 192**	8.0**	>15
	30.20	Knock-out Bond Beam	390L x 290W x 190H	60* 60**	24.0* 23.3**	>15
	30.48	H Block	390L x 290W x 190H	60* 60**	18.2* 17.5**	>15
	30.72	Half Height Three Quarter	290L x 290W x 90H	160**	8.3**	>15
	30.925	Single Core	390L x 290W x 190H	60**	19.8**	>15
	40.925	Full Hollow	390L x 390W x 190H	45**	22.7**	>15



designing masonry for FIRE RESISTANCE

When a masonry wall is subjected to fire, which is usually only on one side, a thermal gradient is created through the thickness of the wall and the expansion of the material causes bowing towards the fire source. If this bowing extends far enough it can cause collapse of the wall. If the wall does not collapse, it can crack due to internal stresses caused by restraint of the thermal expansion, or it can heat up sufficiently to allow flammable material on the side away from the fire to ignite. Both these consequences may allow the fire to spread.

The National Construction Code (NCC) requires that walls be designed in accordance with Section 6: Design for Fire Resistance of AS3700:2011, to provide the required fire resistance in buildings. 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 fire. The Austral Masonry Queensland Denseweight concrete masonry range complies with these standards. Note that these products contain less than 45% basalt in their mix designs.

The fire resistance level (FRL) is given in the form of three numbers, for example 180/120/120, which represent the required FRL (in minutes) for structural adequacy/integrity/insulation. Austral Masonry Queensland Denseweight products reach a 60 to 240/60/60* FRL rating when hollow and a 60 to 240/120/120* FRL rating when core filled.

***Optimum Slenderness Ratio (Srf) of masonry, from AS3700:2011, Table 6.1, is:**

Hollow	Core Filled and Reinforced
18.0 at 60 minutes	36.0 at 60 minutes
17.0 at 90 minutes	36.0 at 90 minutes
16.0 at 120 minutes	36.0 at 120 minutes
15.5 at 180 minutes	36.0 at 180 minutes
15.0 at 240 minutes	36.0 at 240 minutes

Structural Adequacy

Structural adequacy is the ability of a wall to continue to perform its structural function for the fire resistance period. The fire resistance period for structural adequacy is a function of the slenderness ratio for the wall and is governed by three formulae in AS3700:2011, Clause 6.3.2.2. These formulae use the masonry panel's height, length, thickness and restraint conditions around the perimeter to calculate the panel's slenderness ratio for fire (Srf).

The relevant Srf's for Queensland Denseweight product ranges are outlined in AS3700:2011 Table 6.1. (<45% Basalt).

Restraint at the top of a wall can be provided by a load-bearing concrete slab, head ties from infill walls to the underside of a concrete slab or ties to a braced roof frame. End restraints can be provided by bonded corners, ties to columns or buttresses with a length greater than the wall height multiplied by 0.2. Where a wall butts into and is tied to the proposed fire wall, it divides that wall into two panels for the purpose of calculating Srf.

Integrity

Integrity is the ability of a wall to maintain its continuity and prevent the passage of flames and hot gases through cracks in the wall for the fire resistance period. Design for integrity is based on Clause 6.4.2 of AS2700 which deems that the FRL for integrity will be met if the wall meets the value for insulation and structural adequacy.

Insulation

Insulation is the ability of a 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 fire resistance period. However, it should be noted that 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.

Insulation is governed by the material thickness of the masonry unit. For solid and cored (core volume less than 30%) masonry units, the 'material thickness' is taken as the actual thickness. The actual thickness is also used for hollow units in which all cores are filled with grout. For hollow units which are unfilled or partly filled, the 'material thickness' is the net or material volume of the unit divided by its face area, commonly referred to as 'equivalent thickness'. If the wall is cement rendered on both sides, the thickness of the thinner coating up to a maximum value of 20mm may be added to the material thickness of the wall.

BENEFITS

of Austral Masonry

When considering building products to use on your project, it's important to understand all the pro's and con's before making your final selections. But with concrete masonry products you know your making the right choice when you consider the host of benefits they offer including: sound insulation, thermal mass, environmental impact, colours and finishes, ongoing maintenance and many more. See the list of benefits below so you can build in confidence with concrete masonry.

Sound insulation

Due to their mass, concrete masonry blocks out noise better than traditional building materials, resulting in a quieter home environment.

Range of colours and finishes

Concrete masonry products are available in a range of over 78 colour and finish combinations. This offers you a wide range of products to choose from to suit the style of your home.

Thermal mass

Due to their mass concrete masonry products slow the transfer of external temperature fluctuations into internal living areas thereby reducing the need for artificial heating and cooling devices.

Affordable

When comparing other products on the market concrete masonry is an affordable option. This is especially true when considering the complete building system as concrete masonry can reduce or negate the need for accessory products such as sarking and insulation.

Low maintenance

When you build with concrete masonry products you are building with a material that requires minimal maintenance and upkeep so you have more time for the important things in life.

Fire resistant

Concrete masonry products are made from non combustible materials so they are fire resistant and therefore ideal for bushfire prone areas.

Weather resistant

Exterior Walls that will hold up to heavy storms, U.V. degradation, blistering heat, and sub-zero temperatures.

Termite resistant

Masonry walls wont be degraded by termites as there's no wood for the termites to eat.

Lower energy costs

Concrete masonry products are high thermal mass products which slow the transfer of temperature fluctuations from the outside into internal living areas.

This reduces the need for use of articial heating and cooling devices and thereby reduces associated energy costs.

Low environmental impact

Masonry products production has minimal impact on the environment because they do not deplete precious natural and limited resources like many other materials. Concrete masonry products are cured in temperature controlled kilns with comparatively little energy used compared to kiln fired products.

Impact resistance

Because masonry products are made from concrete they are strong and durable which means that they can endure significant impact from external forces with minimal if any impact.

Speed of construction

Concrete masonry products are much faster to build with than some commonly used walling materials and have the added benefit of being both structural and aesthetic.





WE ARE

Brickworks

Brickworks Building Products is one of Australia's largest and most diverse building material manufacturers. Under the Brickworks Building Products umbrella are some of Australia's best known building materials brands. Our products include bricks, pavers, masonry blocks, retaining wall systems, precast concrete panels, concrete and clay roof tiles, timber products and specialised façade systems.

With a broad product portfolio and manufacturing and sales facilities across Australia, Brickworks Building Products is uniquely placed to service the demands of the building industry.

With over 1200 staff across Australia and New Zealand, we pride ourselves on our commitment to product, service excellence and our leadership position.

BRICKWORKS
BUILDING PRODUCTS

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SINCE 1908

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BORAL BRICKS

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NATIONAL HEAD OFFICE DESIGN CENTRES

Queensland	Rockhampton	Cairns	Ayr	Townsville
184 Burnside Rd Yatala QLD 4208	42-50 Johnson Street Parkhurst QLD 4702	8 Palmer St Cairns QLD 4870	7 Conford Crescent Ayr QLD 4807	42 Blakey St Garbutt QLD 4814

BRICKWORKS
BUILDING PRODUCTS

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Austral Masonry is part of the Brickworks Group

The product images shown in this brochure give a general indication of product colour for your preliminary selection. Austral Masonry recommends all customers see actual product samples at a selection centre prior to making final selections.

- 1. Stock colours.** Colours other than stock colours are made to order. Contact your nearest Austral Masonry office for your area's stock colours. A surcharge applies to orders less than the set minimum quantity. **2. Colour and texture variation.** The supply of raw materials can vary over time. In addition, variation can occur between product types and production batches. **3.** We reserve the right to change the details in this publication without notice. **4.** For a full set of Terms & Conditions of Sale please contact your nearest Austral Masonry sales office. **5. Important Notice.** Please consult with your local council for design regulations prior to the construction of your wall. Councils in general require those walls over 0.5m in height and/or where there is loading such as a car or house near the wall be designed and certified by a suitably qualified engineer. **6. Max wall heights disclaimer.** The gravity wall heights are maximum heights calculated in accordance with CMAA MA-53 Appendix D guidelines and a qualified engineer should confirm the suitability of the product for each application. As such, due consideration must be given to but not limited to: Cohesion. Dry backfill, no ingress of any water into the soil behind the retaining wall. All retaining walls are designed for zero surcharge unless noted otherwise. These walls are intended for structure Classification A walls only as defined in AS4678 Earth Retaining Structures as being where failure would result in minimal damage and/or loss of access. The product images shown in this brochure give a general indication of product colour for your preliminary selection. Austral Masonry recommends all customers see actual product samples at a selection centre prior to making final selections.