SOUTHERN

designer concrete blocks
BEAUTIFUL PRODUCTS that last a lifetime

Cover: Southern Veneer Split Face Riverstone
Our range of coloured, standard and premium masonry has set a new standard in quality and style for the versatile concrete block.

By adding oxides and coloured sands to our mix of raw materials, we produce blocks with contemporary colours, textures and appeal. Ideal for a range of projects from a modern beach residence to impressive commercial projects, Austral Masonry has an array of products to suit your style.

Austral Masonry blends fine sand, cement, aggregate and quality colouring agents to produce unique coloured blocks. Having long been the workhorse of the construction industry, our products are frequently specified in cutting-edge residential and commercial designs due to their strength and versatility.

Austral Masonry is part of the Brickworks Building Products Group, one of Australia’s largest building products companies, with a stable of leading brands dedicated to manufacturing innovative products for Australians and the world for over 100 years.

As part of this group, our current products include masonry blocks, retaining wall blocks, bricks, pavers, precast concrete panels, concrete and ceramic roof tiles, timber products, terracotta façade systems and specialised building systems.
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### PRODUCT RANGES

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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 you’re 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 won’t 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 artificial heating and cooling devices and thereby reduces associated energy costs.

**Low environmental impact**
Masonry product 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.
Finishes Guide

The Southern Range is available in a range of finishes to suit your style and project.

**Split face**
The splitting process used to create these blocks produces a bold textured exposed aggregate finish.
Available in: **Southern Split Face**

**Smooth**
A finely textured finish created through the standard moulding process.
Available in: **Southern Smooth**

Range of Sizes

The Southern Range is available in a range of sizes to suit various applications.

Each series noted below relates to the blocks thickness (so a 100 Series block is 100mm thick in application).
Each series comprises numerous block formats and lengths.

100mm Series
150mm Series
200mm Series
The rustic finish of split face creates a distinctive look.

The splitting process used to create these blocks produces a bold textured, exposed aggregate finish.
Riverstone
Desert Fawn
Bluestone
Titanium

Above: Southern Split Face Desert Fawn
Create a smooth and subtle finish with Southern Smooth.

Its smooth surface gives a soft glow to any project. Offering contemporary colours from Riverstone to Bluestone, there’s an option to suit most colour schemes.
Above: Southern Smooth Riverstone
The Southern Veneer Range brings together a collection of contemporary colours in one distinctive block size.

Perfect for architectural feature walls, the Southern Veneer range creates a unique finish for creative spaces.

The Southern Veneer Split Face block is available in a 390mm by 90mm by 40mm size.
Above: Southern Veneer Split Face Riverstone
## Smooth 100 Series

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Name</th>
<th>Unit Weight</th>
<th>Units per Pallet</th>
<th>Units per Tonne</th>
<th>Characteristic</th>
<th>Durability Class</th>
<th>Dimensional Category</th>
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<tr>
<td>V10-01</td>
<td>Full</td>
<td>12kg</td>
<td>144</td>
<td>90</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
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<tr>
<td>V10-83</td>
<td>Solid Half Height</td>
<td>6kg</td>
<td>288</td>
<td>151</td>
<td>&gt;10</td>
<td>GP</td>
<td>DW4</td>
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<tr>
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<td>3kg</td>
<td>288</td>
<td>198</td>
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<td>V10-02</td>
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## Smooth 150 Series

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<th>Units per Tonne</th>
<th>Characteristic</th>
<th>Durability Class</th>
<th>Dimensional Category</th>
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<tr>
<td>V15-01</td>
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<td>120</td>
<td>75</td>
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## Smooth 200 Series

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<th>Durability Class</th>
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<tr>
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<td>192</td>
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## Split Face 100 Series

<table>
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<tr>
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<th>Units per Tonne</th>
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<tr>
<td>V10-101</td>
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<tr>
<td>V10-109</td>
<td>Solid Half Height</td>
<td>7kg</td>
<td>240</td>
<td>110</td>
<td>&gt;10</td>
<td>GP</td>
<td>DW4</td>
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<tr>
<td>V10-103</td>
<td>Half Cored</td>
<td>7kg</td>
<td>240</td>
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<td>&gt;15</td>
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<td>DW4</td>
</tr>
<tr>
<td>V10-26</td>
<td>Solid</td>
<td>17kg</td>
<td>80</td>
<td>432</td>
<td>&gt;15</td>
<td>GP</td>
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<tr>
<td>V10-117</td>
<td>Veneer</td>
<td>3kg</td>
<td>432</td>
<td>318</td>
<td>&gt;10</td>
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<tr>
<td>V10-102</td>
<td>Three Quarter</td>
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<td>120</td>
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## Split Face 150 Series

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<th>Units per Tonne</th>
<th>Characteristic Unconfined Compressive Strength - f'uc (MPa)</th>
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## Split Face 200 Series

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<td>V20-123</td>
<td>Half Hollow</td>
<td>9kg</td>
<td>180</td>
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# STANDARD GREY BLOCK

## 100 Series

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<tr>
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<th>Units per Pallet</th>
<th>Units per Tonne</th>
<th>Unconfined Compressive Strength - f'uc (MPa)</th>
<th>Durability Class</th>
<th>Dimensional Category</th>
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<tbody>
<tr>
<td>10-01</td>
<td>Standard Cored</td>
<td>10kg</td>
<td>180</td>
<td>107</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>10-02</td>
<td>Three Quarter Cored</td>
<td>8kg</td>
<td>192</td>
<td>134</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>10-03</td>
<td>Half Cored</td>
<td>9kg</td>
<td>288</td>
<td>202</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>10-31</td>
<td>Solid</td>
<td>13kg</td>
<td>144</td>
<td>72</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>10-33</td>
<td>Half Solid</td>
<td>7kg</td>
<td>288</td>
<td>145</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>10-34</td>
<td>Quarter Solid</td>
<td>3kg</td>
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<td>303</td>
<td>&gt;15</td>
<td>GP</td>
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<td>10-201</td>
<td>Cored Back Up Block</td>
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<td>288</td>
<td>190</td>
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<td>GP</td>
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## 120 Series

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<th>Units per Tonne</th>
<th>Unconfined Compressive Strength - f'uc (MPa)</th>
<th>Durability Class</th>
<th>Dimensional Category</th>
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</thead>
<tbody>
<tr>
<td>12-801</td>
<td>Standard Cored</td>
<td>13kg</td>
<td>150</td>
<td>76</td>
<td>&gt;15</td>
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<td>68</td>
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<tr>
<td>15-01</td>
<td>Hollow</td>
<td>13kg</td>
<td>144</td>
<td>76</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
</tr>
<tr>
<td>15-02</td>
<td>Three Quarter Hollow</td>
<td>9kg</td>
<td>128</td>
<td>111</td>
<td>&gt;15</td>
<td>GP</td>
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<td>15-03</td>
<td>Half Hollow</td>
<td>6kg</td>
<td>192</td>
<td>166</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
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<td>15-12</td>
<td>Lintel/Bond Beam</td>
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<td>120</td>
<td>75</td>
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<td>DW4</td>
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<tr>
<td>15-71</td>
<td>Half Height Hollow</td>
<td>6kg</td>
<td>240</td>
<td>156</td>
<td>&gt;15</td>
<td>GP</td>
<td>DW4</td>
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<tr>
<td>15-22</td>
<td>Corner Hollow</td>
<td>9kg</td>
<td>96</td>
<td>111</td>
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<tr>
<td>15-83</td>
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<td>168</td>
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<td>GP</td>
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<td>74</td>
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<td>144</td>
<td>74</td>
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<td>GP</td>
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*style and function*
# STANDARD GREY BLOCK

## 200 Series

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<th>Characteristic</th>
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<td>Hollow</td>
<td>18kg</td>
<td>108</td>
<td>62</td>
<td>&gt;15</td>
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<tr>
<td>20-02</td>
<td>Three Quarter Hollow</td>
<td>13kg</td>
<td>96</td>
<td>80</td>
<td>&gt;15</td>
</tr>
<tr>
<td>20-03</td>
<td>Half Hollow</td>
<td>9kg</td>
<td>144</td>
<td>122</td>
<td>&gt;15</td>
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<tr>
<td>20-12</td>
<td>Lintel/Bond Beam</td>
<td>10kg</td>
<td>90</td>
<td>91</td>
<td>&gt;15</td>
</tr>
<tr>
<td>20-42</td>
<td>Channel</td>
<td>16kg</td>
<td>108</td>
<td>74</td>
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<tr>
<td>20-48</td>
<td>H Block</td>
<td>14kg</td>
<td>90</td>
<td>60</td>
<td>&gt;15</td>
</tr>
<tr>
<td>20-61</td>
<td>Cleanout Blocks</td>
<td>13kg</td>
<td>72</td>
<td>82</td>
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<thead>
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<th>Code</th>
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<th>Unit Weight</th>
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<th>Units per Tonne</th>
<th>Characteristic</th>
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<tr>
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<td>Deep Lintel</td>
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<td>72</td>
<td>72</td>
<td>&gt;10</td>
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<tr>
<td>20-38</td>
<td>Sill</td>
<td>-</td>
<td>-</td>
<td>113</td>
<td>&gt;15</td>
</tr>
<tr>
<td>50-31</td>
<td>Capper</td>
<td>6kg</td>
<td>216</td>
<td>N/A</td>
<td>&gt;15</td>
</tr>
<tr>
<td>20-71</td>
<td>Half Height Hollow</td>
<td>6kg</td>
<td>216</td>
<td>166</td>
<td>&gt;15</td>
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## 300 Series

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<th>Units per Tonne</th>
<th>Characteristic</th>
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<tbody>
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<td>30-48</td>
<td>H Block</td>
<td>19kg</td>
<td>72</td>
<td>71</td>
<td>&gt;15</td>
</tr>
<tr>
<td>30-01</td>
<td>Standard</td>
<td>19kg</td>
<td>72</td>
<td>71</td>
<td>&gt;15</td>
</tr>
<tr>
<td>20-02</td>
<td>Half</td>
<td>13kg</td>
<td>84</td>
<td>51</td>
<td>&gt;15</td>
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<td>30-92</td>
<td>Full End/Open End</td>
<td>15kg</td>
<td>96</td>
<td>80</td>
<td>&gt;15</td>
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### Estimating Data

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<th>Series type No.</th>
<th>Product Code</th>
<th>Nominal dimensions (LxHxW)</th>
<th>No. per m²</th>
<th>Actual thickness (mm)</th>
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<td>400x200x100</td>
<td>12.5</td>
<td>90</td>
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<tr>
<td>100mm Solid</td>
<td>10.31</td>
<td>400x200x100</td>
<td>12.5</td>
<td>90</td>
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<td>100mm Half Height Solid</td>
<td>10.83</td>
<td>400x100x100</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>100mm Backup Cored</td>
<td>10.201</td>
<td>400x172x100</td>
<td>14.5</td>
<td>90</td>
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<tr>
<td>120mm Cored</td>
<td>12.801</td>
<td>400x200x120</td>
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<tr>
<td>120mm Solid</td>
<td>Fed-DW</td>
<td>240x86x120</td>
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<td>25</td>
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</tr>
<tr>
<td>150mm Backup Hollow</td>
<td>15.201</td>
<td>400x172x150</td>
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<tr>
<td>150mm Cored</td>
<td>15.801</td>
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</tr>
<tr>
<td>200mm Hollow</td>
<td>20.01</td>
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<td>12.5</td>
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<tr>
<td>200mm Half Height Hollow</td>
<td>20.71</td>
<td>400x100x200</td>
<td>25</td>
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<tr>
<td>300mm Hollow</td>
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<td>400x200x300</td>
<td>12.5</td>
<td>190</td>
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<td>120mm Quick Brick</td>
<td>Quick Brick</td>
<td>240x172x120</td>
<td>24.2</td>
<td>110</td>
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<tr>
<td>Quarter Height Split Face</td>
<td>10.117</td>
<td>400x50x100</td>
<td>50</td>
<td>95</td>
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</table>
Block Information and helpful hints

**Block Thickness**
Blocks are available in a series of five thicknesses:
- 100mm Series - 90mm total block thickness
- 120mm Series - 110mm total block thickness
- 150mm Series - 140mm total block thickness
- 200mm Series - 190mm total block thickness
- 300mm Series - 290mm total block thickness

**Codes of practice**
Austral Masonry products are manufactured in accordance with the provisions of Australian Standard AS445:2008 Masonry Units and Segmental Pavers. It is recommended that design, drawing practice and construction be carried out in accordance with AS 3700, Masonry Structures.

**Jointing**
The mortar squeezed from the joints should be struck off flush with the wall as each block is laid. When the mortar has stiffened and is firm to the touch, it should be firmly compacted with a jointing tool. This compaction is important since mortar, when hardening, has a tendency to shrink slightly.

**Control joints**
When required, control joints should be located:
- at major changes in wall height,
- at changes in wall thickness, other than for piers and buttresses,
- at control joints in footings, in the roof, and in floors,
- at chases and recesses for pipings, columns, fixtures, etc.
- at one or both sides of wall openings,
  - near wall intersections.
- other than as above, unreinforced masonry should have control joints at 6m centres. 16m if adequately reinforced.

**Back Up Block Height**
Backup blocks are 162mm high, so that one grey block will equal two courses of standard bricks. This enables the brick ties to reinforce the skins when the two products are used in the same double skin wall. Half height blocks are also available.

**Specials**
Lintels, H blocks, Channels, and Bond Beams enable blocklayers to place reinforcing bars in a wall in line with engineering guidelines.

**Fire and sound resistance**
Details are available on request from your local Austral Masonry Design Centre.
**Bond beams**

A bond beam is a continuous beam around the exterior of a building for the purpose of providing lateral stability to the walls, and to minimise the possibility of shrinkage cracking at openings. Bond beam blocks should be filled with concrete or grout as specified and suitable reinforcing steel. Reinforcement should be not less than 12mm deformed bars.

**Flashing**

In cavity walls, flashing shall be placed at an angle across the cavity to discharge moisture towards weep holes. Turn up ends to prevent moisture draining into cavities. Flashing and capping should be provided to the tops of all parapets.

**Cleaning**

Care should be taken during construction of masonry walls to prevent excess mortar being smeared over the faces of the blocks. Finished walls should be cleaned down after the mortar has hardened by rubbing with a piece of block or carborundum stone, wire brushing where necessary. Acid must not be used for cleaning concrete masonry walls.

**Delivery**

Delivering your blocks is the first step in the construction process. Here are a few simple guidelines to help with a smooth delivery.

- Deliver ahead of time, preferably at least a day before work commences. Please give us at least 48 hours notice for subsequent deliveries.
- Take as many blocks as you can in one delivery to ensure priority service and efficient on-site blending.
- Help us find you by giving us a clear street address, including the nearest crossroad. Tell us of any obstacles such as narrow, dead-end or one-way streets etc. Place job site signs prominently.
- Ensure easy site access by telling us beforehand about any difficulties. If you require us to enter through neighbouring land, it’s your responsibility to get prior, written permission.
- On-site pack placement needs to be organised before delivery – use signs to indicate placement points.
- Blocks are heavy and a tractor with a full pack weighs about five tonnes. Ensure the ground (including underlying pipes) and any pavement traversed can sustain this weight. Our tractors need at least 2.5 m clear width and 2.6 m height clearance.
- Safety comes first so please ensure children and pets are out of the way during delivery. Our driver has the final say when it comes to safety and possible site damage.
- Inspect the delivery and call Austral Masonry™ immediately if there are any problems. Product liability transfers to the purchaser once the units are installed.

**Blending**

Your bricklayer is a professional tradesman and is responsible for ensuring even colour distribution.

The blending instructions attached to all packs recommend:

1. Don’t mix blocks of different types or qualities (for example, firsts and seconds).
2. Work from at least three open packs of the same block type and quality.
3. Select the top block from a top corner of each pack.
4. Work progressively from a corner down and across each pack in a diagonal pattern. (Don’t remove blocks in horizontal layers.)
Mortar and Mortar Joints

The three principal functions of mortar are:

1. To provide bedding for the blocks and allow even course levels by taking up small variations in unit height.

2. To transmit compressive loads.

3. To hold the blocks together in the wall by bonding to them, so that tensile and shear forces can be carried. (This is often referred to as “bond strength”). This is particularly important to ensure units on top of a wall are not easily dislodged.

In order to provide a good bond between the units and the mortar, the following guidelines should be followed:

- An appropriate mortar mix design should be selected.

- The mortar should be batched accurately using some consistent form of volume measurement, e.g. half bag of cement, half bag of lime and 18 shovels of sand for a 1:1:6 mix.

- The sand used in the mortar should be either clean pit sand or masonry sand. Clayey loam or sand containing organic impurities will affect the mortar strength and should not be used.

- Mortar should be discarded and not retempered after the initial set of the cement has taken place.

- Admixtures. Caution should be exercised when using lime-replacing additives such as plasticisers or workability agents. They should only be used if specified by the architect or engineer and then strictly in accordance with manufacturer’s instructions.

- Detergent should never be used.
Estimating Data

<table>
<thead>
<tr>
<th>Mix proportions by Volume</th>
<th>Methyl cellulose added (see note)</th>
<th>Where used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High durability - use when in contact with earth in retaining walls, below DPCs in fences adjacent to the sea, in capping courses to fences and parapets.</td>
</tr>
<tr>
<td>1 1/4 3</td>
<td>No</td>
<td>Structural blockwork and severe exposure - fences - external walls adjacent seafront - See Note.</td>
</tr>
<tr>
<td>1 1/2 41/2</td>
<td>No</td>
<td>General purpose with moderate exposure.</td>
</tr>
<tr>
<td>1 - 4</td>
<td>Yes</td>
<td>Fireplaces, barbecues and incinerators.</td>
</tr>
<tr>
<td>1 1 6</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1 - 5</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1 2 9</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
Methyl cellulose water thickener is used to prevent the rapid drying out of the mortar thus improving its workability as well as increasing bond strength. It does not have the detrimental effect of the plasticiser or detergent admixtures. It is available under the trade name of Dynex or similar.

Volume of grout used in filling cores

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Vol. of concrete to fill 1 m² wall area (m³)</th>
<th>Vol. of concrete to fill 100 blocks (m³)</th>
<th>No. of blocks filled by 1 cubic metre (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.01 / 15.42</td>
<td>0.054</td>
<td>0.43</td>
<td>220</td>
</tr>
<tr>
<td>20.01 / 20.42</td>
<td>0.083</td>
<td>0.66</td>
<td>150</td>
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<tr>
<td>20.48 H Block</td>
<td>0.100</td>
<td>0.80</td>
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<tr>
<td>30.48</td>
<td>0.18</td>
<td>1.44</td>
<td>69</td>
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</table>

style and function
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 ceramic 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.
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.

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Austral Masonry is part of the Brickworks Group

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