

Safety and Ordering

SAFETY

Avoid direct skin contact with both wet and dry cements. Avoid breathing cement dust by wearing a P1 or P2 dust mask suitable for airborne dust. Wear appropriate protective clothing and footwear.

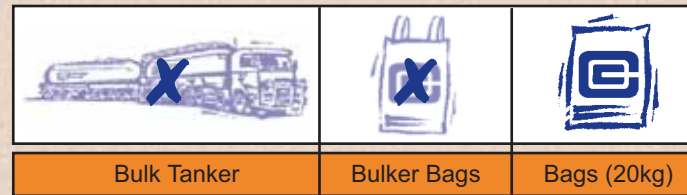
Additional information is available in the form of material safety data sheets on request.
Phone 1300-138-996



FIRST AID

In the event of skin contact wash with clean water to minimise possible irritation. If material gets into eyes wash immediately and repeatedly with eye wash solution or clean water.

Brickies Lite Coastal M4 is available in:



NEED TECHNICAL HELP?

For more information contact
Technical Support on our
free-call-help-line 1300-138-996
or visit our website
www.cockburncement.com.au

SALES AND ORDERING:

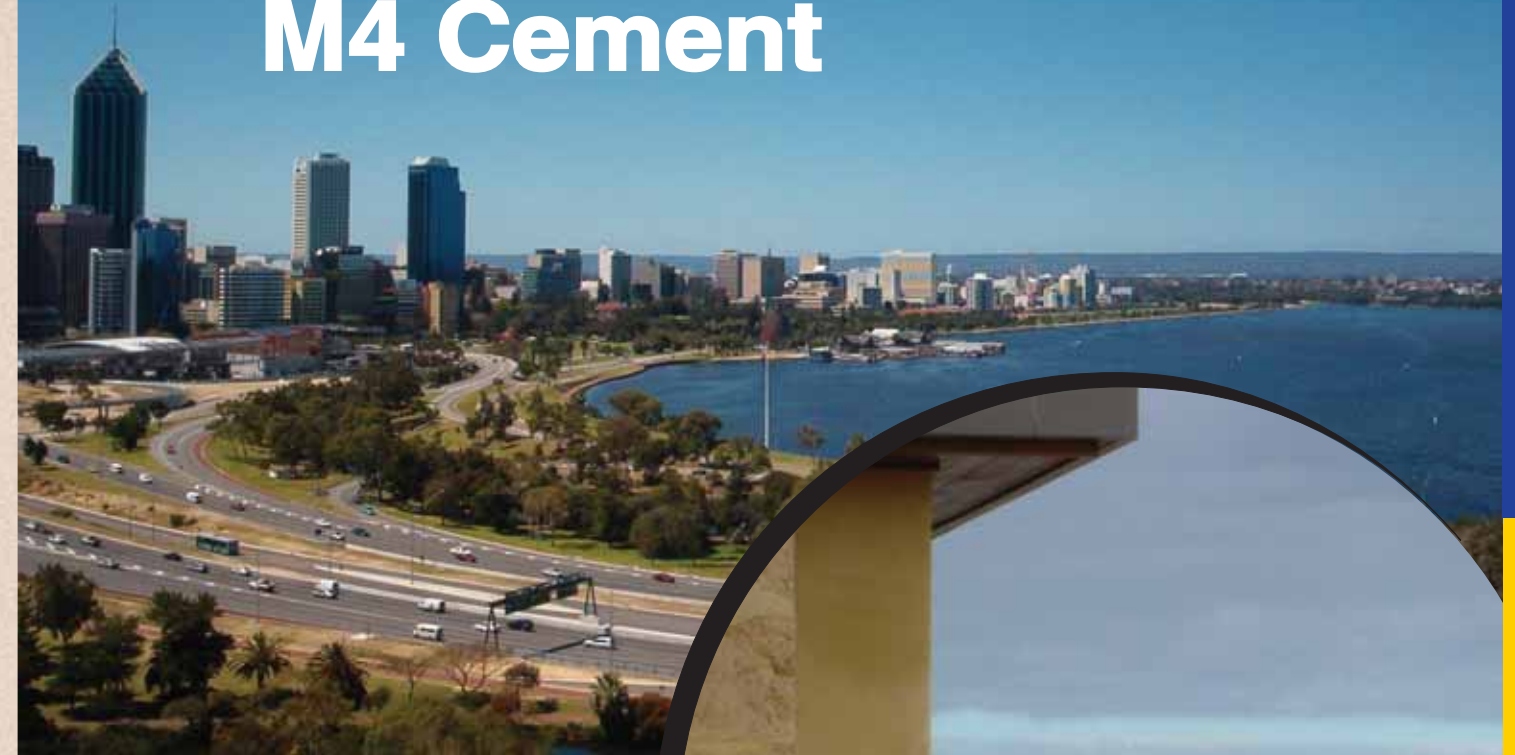
Customer Service Centre:
(08) 9411 1166



ABN 50 008 673 470
Lot 242 Russell Road East,
Munster Western Australia 6166
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Brickies Lite Coastal M4 Cement



PRODUCT INFORMATION



BRICKIES LITE COASTAL

M4 CEMENT

PRODUCT INFORMATION AND PROPERTIES

With building within the coastal zones of WA becoming more and more popular, with the canal regions of Mandurah and the continuing redevelopment of the metropolitan coastal zone, as well as along the entire length of WA's vast coastline, an awareness of the AS3700 Masonry Structures code and how to adhere to it is required.

Cockburn Cement has taken the lead by developing a pre-blended Cockburn Creme cement and Hylime product called Brickies Lite Coastal M4 to complement the already popular product Brickies Lite. Brickies Lite Coastal M4 is designed to meet the requirements of the AS3700 "extreme marine environment" classification of masonry durability.

This environment is classified as requiring mortar type M4, which is a highly durable mortar that has the ability to withstand the test of the coastal elements when applied in the correct manner. All M4 mortars should have an ironed joint to ensure the AS3700 standard is met.

In 1998 the M4 mortar classification was amended in the AS3700. This change was made to better control the durability of masonry used within 1km of a breaking surf coastline and 100m of a non-surf coastline such as an estuary or a coastal river zone. It also provides protection for walls in contact with aggressive soils or those constructed below the damp proof course.

Brickies Lite Coastal M4 addresses the problem of variation in site-batched mortars. By using Brickies Lite Coastal M4 the possibility of colour variation is greatly reduced while ensuring that the durability of the mortar meets the criteria of the AS3700. Extensive testing has shown that site batched M4 mortars have had a great variation in their results, with instances of failure to reach some of the M4 criteria. Using Brickies Lite Coastal M4 ensures that the required results are reached time after time.

If creme M4 mortar is required for your construction, Brickies Lite Coastal M4 is the one to use. For a standard 3 ft³ mixer, the 20kg bag means this product will provide the brickies with a 1 bag mix and the right colour, every time. All that is needed is the correct proportions of sand and water.

Mortar Guide

| Mix | Masonry Exposure Environment |
|-----|--|
| M4 | Retaining walls. External walls located within 1km of a surf coastline or 100m of a non-surf coastline e.g., estuary and coastal river zones. External walls within 1km of significant industry that releases chemical pollutants. Walls below the damp proof course or ground level or in contact with aggressive soils. |

Mix Design - Parts by Volume

| Mix | Cement | Lime | Brickies Sand |
|---------------------|--------|------|---------------|
| Brickies Coastal M4 | 1 | 0 | 3 |

Estimated Quantities To Place 1000 std bricks (230L x 110W x 76H)

| Mix | Cement (20kg Bags) | Lime (20kg bags) | Brickies Sand (m ³ estimate) |
|---------------------|--------------------|------------------|---|
| Brickies Coastal M4 | 10 | 0 | 0.6 |



Render Guide

| Mix | Cement | Lime | Brickies Sand |
|---------------------|--------|------|---------------|
| Brickies Coastal M4 | 1 | 0 | 5 |

Estimated Quantities To Render 100m²

| Mix | Cement (20kg Bags) | Lime (20kg bags) | Brickies Sand (m ³ estimate) |
|---------------------|--------------------|------------------|---|
| Brickies Coastal M4 | 12 | 0 | 1.2 |

General Notes

- Use only recommended mortar and plastering sands free from clay and organic contamination.
- Keep water content to the minimum required for mixing and placing. The more water, the lower the strength.
- Use a standard sized vessel e.g., a bucket, to measure all materials.
- Admixtures should only be used according to the manufacturer's instructions.
- Quantities estimated are typical industry usage and will vary according to individual use patterns.
- For additional DIY information please refer to www.concrete.net.au/doi.htm.

Chemical Properties

| Parameter | Brickies Coastal M4 | Test Method |
|--------------------------------|---------------------|-------------|
| SiO ₂ | 19.6% | XRF |
| Al ₂ O ₃ | 3.65% | XRF |
| Fe ₂ O ₃ | 0.4% | XRF |
| CaO | 64.7% | XRF |
| MgO | 2.9% | XRF |
| SO ₃ | 2.3% | XRF |
| LOI | 4.9% | AS2350.2 |



Coastal M4

| | | | | |
|--------|----------|-----------|------------------|---------|
| | | | | |
| Premix | Site Mix | Brickwork | Moulded Products | Renders |

Physical Properties

| Parameter | Brickies Coastal M4 | AS 1316 - 2003 Limits | Test Method |
|--------------------------------------|---------------------|-----------------------|-------------|
| Water Retentivity | 80% Typical | 80% min | AS2350.18 |
| Air Content | 11% Typical | 16% min | AS2350.16 |
| Initial Set Time | 105 mins | 75 mins (min) | AS2350.4 |
| Final Set Time | 170 mins | 720 mins (max) | AS2350.4 |
| Compressive Strength (1) | | AS1 316 - 2003 Limits | Test Method |
| 7 Day | 31 MPa | 10 MPa | AS2350.11 |
| 28 Day | 34 MPa | 15 MPa | AS2350.11 |
| Flexural Strength by Bond Wrench (2) | | AS 1316 - 2003 Limits | Test Method |
| M4 | 0.5 MPa | 0.2 MPa | AS3700 |

(1) Ottawa Sand used for AS1316 tests.

(2) Test mortars for flexural strength determination were batched in a 3 cubic foot mixer with commercially available brickies sand to give an initial flow of 125% to 135% and air content 10% to 14%. Bricks were 16 core Midland Brick Cream. Tested to AS1226 initial rate of absorption 1.1kg/m²/min and characteristic compressive strength of 45 MPa.