

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 in the form of Material Safety Data Sheets is available on request.

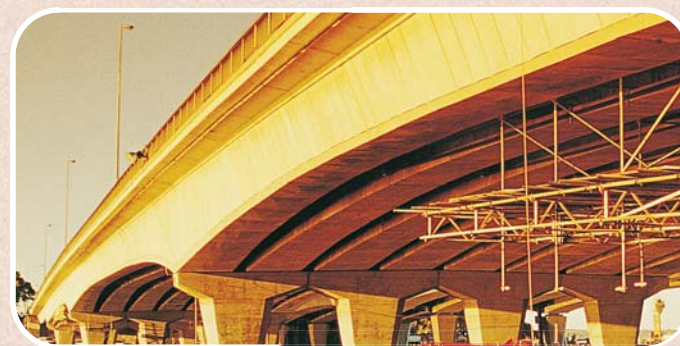
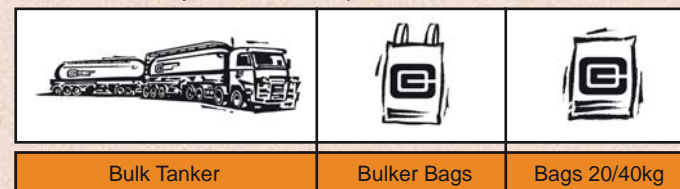
Phone 1300-138-996.



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.

Cockburn Grey General Purpose Cement is available in



NEED TECHNICAL HELP?

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

SALES AND ORDERING:

Customer Service Centre:
(08) 9411 1166

Cockburn Cement, and the Cockburn Cement logo and Hylime are registered trade marks of Cockburn Cement Limited.

© Cockburn Cement Limited - April 2007



ABN 50 008 673 470

Lot 242 Russell Road East,
Munster Western Australia 6166
P O Box 38, Hamilton Hill WA 6163
Telephone: (08) 9411 1111
Facsimile: (08) 9411 1120

Cockburn Grey General Purpose Cement

PRODUCT INFORMATION



COCKBURN GREY GENERAL PURPOSE CEMENT

PRODUCT INFORMATION AND PROPERTIES

Whether you're pouring a slab or panel, building a home or hospital or making top quality pavers, Cockburn Cement has the grey cement you need.

For over 45 years our Grey General Purpose Cement has provided commercial and handyman users with peace of mind and excellent results. Available in bags or in bulk, you need to have quality Cockburn Grey General Purpose on your site for any project.



Concrete Guide

Mix	Concrete Use		
A	High strength structural mixes: precast concrete and heavy duty floors.		
B	General structural concrete: paths, driveways, garage floors.		
C	Footings: for domestic brick walls, fence posts.		
Parts by Volume			
Mix	Cement	Concrete Sand	Aggregate
A	1	1.5	3
B	1	2.0	4
C	1	2.5	5
Quantities To Make One Cubic Metre of Concrete (1m ³)			
Mix	Cement (20 kg bags)	Concrete Sand (m ³ estimate)	Aggregate (m ³ estimate)
A	18	0.4	0.8
B	14	0.5	0.8
C	12	0.4	0.9

Mortar Guide

Mix	Masonry Exposure Environment
M4	Retaining Walls. Walls located within 1km of a surf coastline or 100m of non-surf coastline eg., estuary and coastal river zones. Walls within 1km of significant industry that releases chemical pollutants.
M3	Walls below the damp-proof course or ground level or in contact with aggressive soils. Walls between 1km and 10km of a surf coastline or between 100m and 1km of a non-surf coastline eg., estuary and coastal river zones. Walls in contact with fresh water or the ground in non-aggressive soils.
M2	Internal walls subject to wetting and drying of a non-saline character. External above ground walls greater than 10km of a surf coastline or greater than 1km of a non-surf coastline eg., estuary and coastal river zones.
MCS	Interior walls not subject to wetting and drying. Calcium silicate brickwork - single story internal walls.



Mix Design - Parts by Volume			
MIX	Cement	Hylime	Brickies Sand
M4	1	0.50	4.5
M4 alternative mix	1	0.25	3
M3	1	1	6
M2	1	2	9
Estimated Quantities To Place 1000 standard bricks (230L x 110W x 76H)			
MIX	Cement (20kg bags)	Hylime (20kg bags)	Brickies Sand (m ³ estimate)
M4	8	1.5	0.6
M4 alternative mix	11	1	0.6
M3	7	2.5	0.6
M2	5	3.5	0.6

Please refer to AS3700 (2001) "Masonry Structures" for more detailed information.

Render Guide

Use	Substrate	Mix Ratios By Volume			Cement 20kg Bags	Hylime [®] 20kg Bags
		Cement	Hylime [®]	Plasterers Sand		
Float / base coat	Cored Clay Bricks	1	1	7	10	4
	Calcium Silicate	1	1.5	6	10	6
	Concrete Blocks	1	1	6	11	4
Sand finish base coat		1	1	4.5	13	5
Sand finish top coat		1	1	51	12	5
Cement Dado		use Plasterers Dark [®] Cement				

Render Notes:
Approximately 1.2m³ of damp sand is required for 1m³ of render.
Estimate based on 1m³ of render covering 100m² at 10mm thickness.

Chemical Properties

Parameter	CCL Typical	AS3972 1997 Limits	Test Method
SiO ₂	21.1%	3.5% Max	XRF
Al ₂ O ₃	4.7%		XRF
Fe ₂ O ₃	2.8%		XRF
CaO	63.8%		XRF
MgO	2.0%		XRF
SO ₃	2.5%		XRF
LOI	2.1%		AS2350.2
Chloride	0.01%		ASTM C114
Na ₂ O	0.50%		ASTM C114
Equivalent			

General Notes:

- Use only recommended concrete, mortar or plastering sands free from clay and organic contamination.
- Use a 50/50 blended 20mm + 10mm stone for concrete aggregate.
- Keep water content to the minimum required for mixing and placing. The more water, the lower the strength.
- Use a standard sized vessel eg., a bucket, to measure all materials.
- Admixtures should only be used according to the manufacturer instructions. Hylime[®] contains an air-entraining agent, additional air entraining agent is not required.
- 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

Grey General Purpose Cement

Premix	Site Mix	Brickwork	Moulded Products	Renderers

Physical Properties

Parameter	CCL Typical	AS3972-1997 Limits	Test Method
Fineness Index	400 m ² /kg	n/a	AS2350.8
Normal Consistency	28.5%	n/a	AS2350.3
Initial Set Time	2:00 hour:min	0:45 hour:min Min	AS2350.4
Final Set Time	3:15 hour:min	10:00 hour:min Max	AS2350.4
Soundness	1mm	5mm	AS2350.5
ISOCEN Mortar Bar Strengths			
3 day	38 MPa	n/a	AS2350.11
7 day	49 MPa	25 MPa Min	AS2350.11
28 day	62 MPa	40 MPa Min	AS2350.11
Flexural Strength by Bond Wrench (1)	CCL Typical		Test Method
M2 - 1:2:9 mix - 28 day	0.3 MPa		AS3700
M3 - 1:1:6 mix - 28 day	0.5 MPa		AS3700
M4 - 1:0.5:4.5 mix - 28 day	0.6 MPa		AS3700

Mortars tested 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 used were 10 core Midland Brick Cream. Tested to AS1226 initial rate of absorption 1.1kg/m²/min and characteristic compressive strength of 45 MPa.

