

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.

NEED TECHNICAL HELP?

For more information contact
Technical Support on our
help-line 1300-138-996.




SALES AND ORDERING:

Customer Service Centre:
(08) 9411 1166

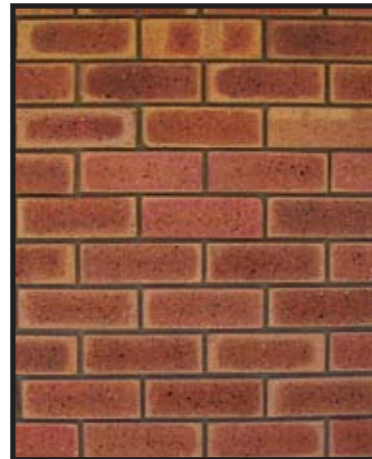
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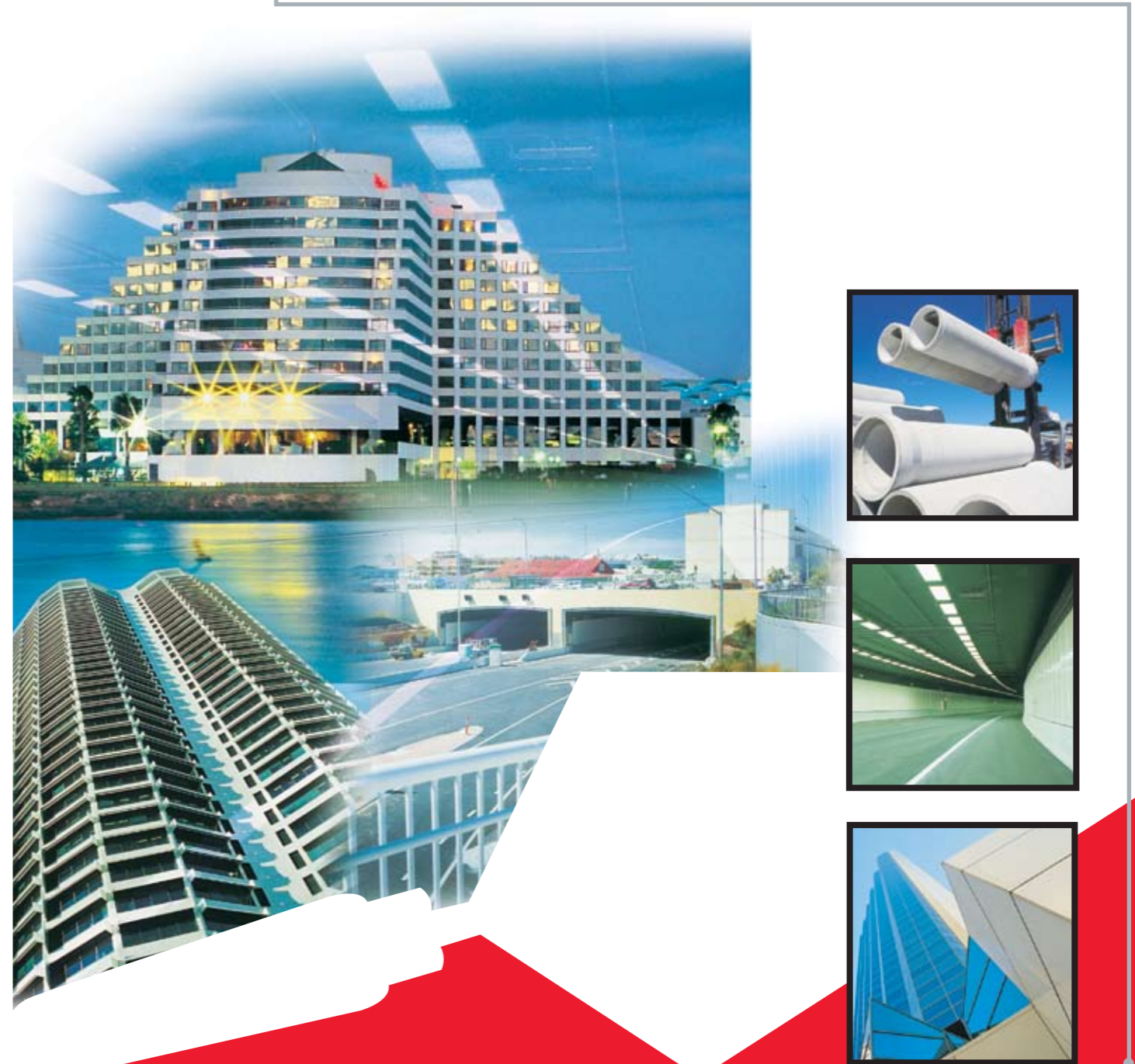
Grey General Purpose Cement available in:

		
Bulk Tanker	Bulker Bags*	20kg Bags

* Contact Swan Cement for availability and sizes



TYPE GP GREY CEMENT



GREY GENERAL PURPOSE CEMENT

PRODUCT INFORMATION

Swan Cement®



PRODUCT INFORMATION AND PROPERTIES

If you need quality and strength in your slabs, panels, pavers or brickwork, then Swan Cement provides WA's oldest and most reliable supply of grey cement.

As the states first cement manufacturer you can rely on our experience in supplying WA's major projects for over 70 years.

Our quality controls and technical service means that whether you're building the Narrows Bridge, Burswood Casino or your own garden retaining wall, Swan Cement has your needs covered.

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	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	0.4	0.8
C	12	0.4	0.8

Mortar Guide

Mix	Masonry Exposure Environment
M4	Retaining walls. Walls located within 1km of a surf coastline or 100m of a non-surf coastline eg., estuary and coastal river zones. 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.
M3	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. Internal walls subject to wetting and drying of a non-saline character.
M2	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. Interior walls not subject to wetting and drying.
MCS	Calcium silicate brickwork - single story internal walls.

Mix Design - Parts by Volume			
Mix	Cement	Marvelime	Brickies Sand
M4	1	0.50	4.5
M4 alternative mix	1	0.25	3
M3	1	1	6
M2	1	2	9
MCS	1	2	9
MCS alternative mix	1 + thickener	0	5
Estimated Quantities To Place 1000 standard bricks (230L x 110W x 76H)			
Mix	Cement (20kg bags)	Marvelime (20kg bags)	Brickies Sand (m ³ estimate)
M4	8	1.5	0.6
M3	7	2.5	0.6
M2	5	3.5	0.6

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

Render Guide

Use	Substrate	Mix Ratios By Volume			Cement 20kg Bags	Marvelime 20kg Bags
		Cement	Marvelime	Plasterers Sand		
Float / base coat	Dense Concrete	1	1	5	12	5
	Clay Bricks	1	1	7	10	4
	Calcium Silicate	1	1.5	6	10	6
	Concrete Blocks	1	1	6	11	4
	Limestone	1	2	9	8	6
	Plaster Blocks	1	1	7	10	4
Sand finish base coat		1	1	4.5	12	5
Sand finish top coat		1	1	5	12	5
Cement Dado	Base Coat	1	Lime Putty	3		
	Finish Coat	1	1	1.5		

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	Swan Typical	AS3972 Limits	Test Method
SiO ₂	20.5%	3.5% Max	XRF
Al ₂ O ₃	5.3%		XRF
Fe ₂ O ₃	2.9%		XRF
CaO	64.4%		XRF
MgO	1.3%		XRF
SO ₃	2.6%		XRF
LOI	1.8%		AS2350.2
Chloride	0.01%		ASTM C114
Na ₂ O	0.5%		XRF
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. *Marvelime* contains an air-entraining agent, additional air entraining agent is not required.
- Quantities estimated are typically industry usage and will vary according to individual use patterns.
- For additional DIY information please refer to www.swancement.com.au

Grey Cement

				
Premix	Site Mix	Brickwork	Moulded	Products Renders

Physical Properties

Parameter	Swan Typical	AS3972 Limits	Test Method
Fineness Index	380 m ² /kg	n/a	AS2350.8
Normal Consistency	28.8%	n/a	AS2350.3
Initial Set Time	1:45 hour:min	0:45 hour:min Min	AS2350.4
Final Set Time	2:45 hour:min	10:00 hour:min Max	AS2350.4
Soundness	1mm	5mm Max	AS2350.5
ISOEN Mortar Bar Strengths			
3 day	39 MPa	n/a	AS2350.11
7 day	51 MPa	35 MPa Min	AS2350.11
28 day	65 MPa	45 MPa Min	AS2350.11
Flexural Strength by Bond Wrench (1)	Swan Typical		Test Method
M2 - 1:2:9 mix - 7 day	0.3 MPa		AS3700
M3 - 1:1:6 mix - 7 day	0.5 MPa		AS3700
M4 - 1:0.5:4.5 mix - 7 day	0.6 MPa		AS3700

(1) 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 150% and air content 10% to 15%. Bricks were 10 core Midland Brick Cream. Tested to AS 4455 initial rate of absorption 0.8 - 2.5kg/m³/min and characteristic compressive strength of 12 MPa.



Swan Cement