BORAL CEMENT
Build something great™

BORAL®

Product Guide
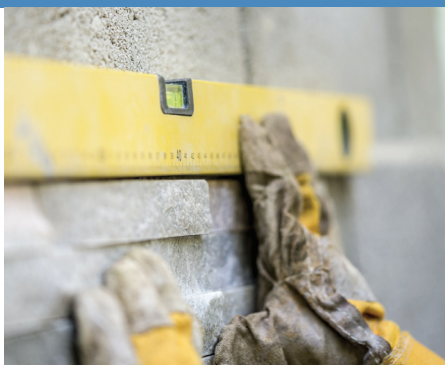
NEW SOUTH WALES

Manual Tasks

Manual handling of bags without proper training may result in personal injury.

Wherever possible you should use mechanical aids or share the load with another person.
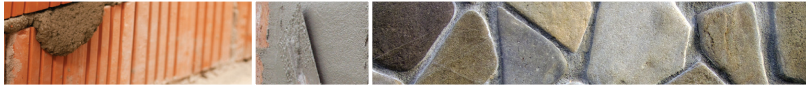
Warning

Cement based products can be classified as Hazardous.

Information on the composition, common risks, safety advice and first aid instructions are included on the packaging for each product listed in the Product Guide/Handy Hints.

Additional information is also available on the Safety Data Sheets (SDS) for each product.

Please refer to the online SDS for the particular product that you require to use.

www.boral.com.au/product_index/safety_data_sheets.asp

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Product Guide

CEMENTS

General Purpose Cement

A general purpose portland cement conforming to AS 3972 type GP. Used in all general concrete, mortar and grouting applications.

Code	Size	Bags per pallet/carton
CPRTT123	2kg	10
CPRTT124	5kg	4
CPCEM102	20kg	72

Builders Cement

A general purpose blended cement conforming to AS 3972 type GB. Used in all general concrete, mortar and grouting applications. Ideally suited for rendering.

Code	Size	Bags per pallet
CPBLM100	20kg	72

Off White Cement

A general purpose portland cement conforming to AS 3972 types GP and HE. Ideally suited to applications that require a lighter coloured mortar.

Code	Size	Bags per pallet
CPCEM104	20kg	72

High Early Strength Cement

A fine grind high early strength cement conforming to AS 3972 type HE. Used in a wide range of concrete product applications where early strength development is required.

Code	Size	Bags per pallet
CPCEM103	20kg	72

CEMENTS

Special Purpose Cement

An engineered cement conforming to AS 3972 types LH and SR and suitable for use in environments where a Low Heat, Sulphate Resisting or Marine cement is required.

Code	Size	Bags per pallet
CPBLM101	20kg	72

Southern White Cement

A general purpose cement conforming to AS 3972 types GP and HE. Ideally suited to applications that require a brilliant white finish.

Code	Size	Bags per pallet/carton
CPRTT195	1kg	10
CPCET101	20kg	72

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LIME & ASSOCIATED PRODUCTS

Hydrated Lime

A hydrated lime conforming to AS 1672.1 'Limes for Building'. Used in cement based mortar mixes to enhance plasticity, binding qualities and durability.

Code	Size	Bags per pallet
CPLIZ104	20kg	54

Fly Ash

A fine grey powder which is used as a filler to add workability to concrete and mortar mixes.

Code	Size	Bags per pallet/carton
CPFAM100	15kg	72

Builders Clay

A super fine air separated fire clay.

Code	Size	Bags per pallet
CPCAT100	20kg	72

Premium Clay

A superfine air separated Kaolin. Also known as Ball Clay. A superior performing clay material typically for rendering applications.

Code	Size	Bags per pallet
CPCAT102	20kg	60

Concrete

A proportioned mix of aggregate, sand and cement suitable for all general purpose concreting applications where a quality concrete is required.

Code	Size	Bags per pallet/carton
CPDMM100	20kg	72

Sand & Cement

A proportioned mix of graded sand and cement. For general purpose bedding, and landscaping applications.

Code	Size	Bags per pallet/carton
CPRTT180	2kg	10
CPRTT182	5kg	4
CPDMM104	20kg	72

Brickies Mortar

A pre mixed trade quality mortar, suitable for use in most brick and block work.

Code	Size	Bags per pallet/carton
CPDMM105	20kg	72

Quick Set Sand & Cement

A proportioned mix of graded sand, cement and additives for instant repair applications.

Code	Size	Bags per pallet
CPDMM110	20kg	72

HS Concrete

A High Strength 50MPa mix containing quality aggregate, sand and Cement. Suitable for Concrete applications where higher strength is required.

Code	Size	Bags per pallet
CPDMM112	20kg	72

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Quick Set Concrete

A proportioned mix of aggregate, sand, cement and additives suitable for all general purpose concreting applications where fast setting characteristics are required.

Code	Size	Bags per pallet
CPDMM101	20kg	72

Rapid Set No Mix Concrete

A pre blended gravel, sand, cement and additive mixture, suitable for post hole applications where lower than normal compressive strength results are acceptable. Cannot be mixed as it flash sets.

Code	Size	Bags per pallet
CPDMM107	20kg	72

Uni Sand

A multi-purpose dried fine sand for use in domestic and commercial applications.

Code	Size	Bags per pallet/carton
CPDMM109	20kg	50

Uni-Render

A universal pre-mixed polymer modified cement render designed for use over new and old brick and block. For both external and internal applications.

Code	Size	Bags per pallet/carton
CPDMM108	20kg	72

Post Hole Concrete

A proportioned mix of aggregate, sand and cement suitable for non-structural post applications.

Code	Size	Bags per pallet
CPDMM102	20kg	72

White Grout

A pure white, sterilised, mould resistant, compressible grouting mixture suitable for internal and external wall applications for joints up to 5mm wide.

Code	Size	Bags per carton
CPRTT197	500g	20
CPRTT199	2kg	10

Casting Plaster

Casting plaster is a quick setting plaster for modelling and general plaster casting applications.

Code	Size	Bags per carton
CPRTT106	1kg	10
CPRTT107	2kg	10
CPRTT108	4kg	5

Whiting

Marking playing areas on athletic and sporting fields (not injurious to eyes). Lifts calcium rates and neutralises high acid PH factors in garden soil. Coating fowl houses and aviaries for hygiene and appearance.

Code	Size	Bags per carton
CPRTT202	25kg	1

Crakfilla

A plaster based powder to fill fine cracks in horizontal and vertical plasterboard.

Code	Size	Bags per carton
CPRTT119	1kg	10
CPRTT120	4kg	5

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X-Lime

Synthetic lime powder for improving placement workability of mortar and plaster.

Code	Size	Units
CPRTT203	2kg	8
CPRTT204	10kg	each

All Trades Sponge

Professional, easy to handle sponge. Ideal for tilers, plasterers, renderers, bricklayers and personal household use.

Code	Size	Units per carton
CPRTT190	–	10

Cemcryl

Cemcryl is a water based acrylic emulsion which when added to cement mixes, will improve the adhesion and water resistance of the mix.

Code	Size	Units per carton
CPRTT110	4Lt	4
CPRTT111	15Lt	each

Cemstik

Used for bonding cement render/plaster to smooth surfaces or old concrete. Also as an admixture in toppings to repair damaged surfaces or as a sealer and general craft adhesive.

Code	Size	Units per carton
CPRTT113	1Lt	12
CPRTT114	4Lt	4
CPRTT115	20Lt	each

Cemcol

Cemcol is a clear liquid air entraining agent that creates small bubbles of air throughout the mix and improves workability in cement based brick mortars and renders.

Code	Size	Units per carton
CPRTT109	20Lt	each

GROUTS

Uni-Grout

Uni-Grout is a general purpose cementitious grout complying with Class A requirements of SAA MP20 part 3. Shrinkage compensation takes place during the setting period.

Uni-Grout uses Portland cement as the primary binder and special additives to produce the non-shrink characteristics through gas expansion. The formulation is chloride and iron free.

Code	Size	Bags per pallet
CPGRM102	20kg	72

Minegrout MG-M

Minegrout MG-M is a preblended Portland cement & plaster based product specifically designed for grouting in gas drainage piping systems in the mining industry.

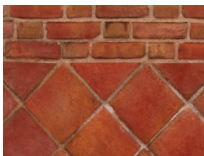| Code	Size	Bags per pallet
CPGRT100	20kg	48

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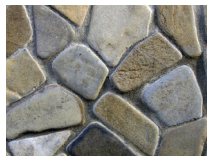## Mix Design & Calculation Chart
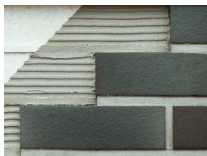
MORTAR

- Laying BRICKS and BLOCKS
- Building STONE walls
- POINTING existing brickwork
- RENDERING
- REPAIRING concrete

SAND-CEMENT

- RENDERING walls
- TOPPING or CAPPING on walls
- Brickwork BELOW GROUND level
- REPAIRING concrete
- SCREED for ceramic tiles

CONCRETE

- Laying PATHS
- Setting POSTS
- Creating MOWING STRIPS
- Light-duty FOUNDATIONS

SAND + WATER + CEMENT

HYDRATED LIME

GRAVEL (Aggregate)

MORTAR   SAND-CEMENT   CONCRETE

The Ready Reckoner for concrete is a general guide only. For specific engineering properties refer to AS3600 (Concrete Structures) or consult a professional engineer.

Mixing Raw Materials

Suggested mix proportions by volume

Materials	Foundations & large masses	General use, paths, floors etc	General use, higher strength
cement	1	1	1
sand	3	2.5	2
stone or gravel	5	4	3

For rectangular slabs, paths and driveways

1. First calculate the area:
   Area square metres(m^2) = length x width (metres)

2. Then use the following table:

Area (m^2)	Volume of concrete in cubic metres (m^3) rounded up to the nearest 0.1				
	50*	75*	100*	125*	150*
5	0.3	0.4	0.5	0.7	0.8
10	0.5	0.8	1.0	1.3	1.5
15	0.8	1.2	1.5	1.9	2.3
20	1.0	1.5	2.0	2.5	3.0
25	1.3	1.9	2.5	3.2	3.8
30	1.5	2.3	3.0	3.8	4.5
35	1.8	2.7	3.5	4.4	5.3
40	2.0	3.0	4.0	5.0	6.0
45	2.3	3.4	4.5	5.7	6.8
50	2.5	3.8	5.0	6.3	7.5

*Slab thickness in mm.

3. Decide whether to use:
   (a) Premix concrete from a readymix supplier
   (b) Bagged cement, sand and stone
   (c) Bagged concrete

Estimating how much cement, sand and stone to order

Mix (as per concrete use)			No. 20kg bags of cement	cubic metres (m^3) of sand	cubic metres (m^3) of stone
cement	sand	stone			
1	2	3	16	0.5	0.8
1	2.5	4	13	0.5	0.8
1	3	5	11	0.5	0.9

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READY RECKONER – CONCRETE

Estimating how many 20kg bags of premix concrete to order
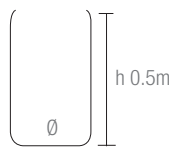(rounded up to the nearest full bag)

Volume Cubic Metre* (m³)	0.02	0.04	0.06	0.08	0.10
No of bags	3	5	7	9	11

* 108 x 20kg bags of Boral Cement Concrete Mix will fill
  1 cubic metre (m³).

Post Calculations

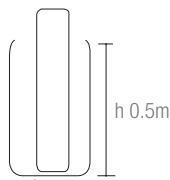Example below based on the dimension given in the two diagrams

Step 1. Calculate entire hole volume.
Formula: $\pi r^2 h$
            = 3.14 x (0.15m x 0.15m) x 0.5m
            Volume = 0.0353m³

Step 2. Calculate volume of post
Formula: $\pi r^2 h$
            = 3.14 x (0.075 x 0.075) x 0.5m
            Volume = 0.0088m³

Step 3. = Volume Step 1 – Volume Step 2
            = 0.035m³ – 0.0088m³
            = 0.026m³

Step 4. = Multiply by number of 20kg bags
                per m³ (108 bags)
            = 0.026m³ x 108
            Therefore = 2.8 bags of 20kg
            Concrete Mix required to fix post in hole.

h 0.5m

Ø

Hole diameter (Ø) = 0.3m
Hole radius (r) = 0.15m

h 0.5m

Post diameter (Ø) = 0.15m
Post radius (r) = 0.075m

For fence posts and other round excavations

Volume of excavation rounded up to the nearest 0.01 cubic metres (m³)
is given below.

Depth of hole (mm)	Cubic metres(m³) needed. Hole diameter (mm)				
	300mm	400mm	500mm	600mm	700mm
200	0.02	0.03	0.04	0.06	0.08
400	0.03	0.05	0.08	0.12	0.16
600	0.05	0.08	0.12	0.17	0.24
800	0.06	0.10	0.16	0.23	0.31
1000 (1m)	0.08	0.13	0.20	0.29	0.39

The Ready Reckoner for mortar is a general guide only. For specific engineering properties refer to AS3700 (Masonry Structures) or consult a professional engineer.

Mixing Raw Materials

Suggested mix proportions by volume

Materials	General brick and block construction	Marine and aggressive environments
cement	1	1
sand	6	4.5
hydrated lime	1	0.5

Laying Bricks – Estimating How Much to Order

For every 1000 bricks				Bricks without frog		
cement	sand	hydrated lime	No. 20kg bags of cement	cubic metres (m³) of sand	No. 20kg bags of hydrated lime
1	6	1	8	0.65	3
1	4.5	0.5	11	0.65	2
1	3	–	16	0.65	–

Buying Premix Bags

Using Brickies Mortar to lay bricks Estimating bags by brick number

No. bricks	200	400	600	800	1000
No. 20kg bags	12	24	36	48	60

WHICH CEMENT FOR WHAT CONDITIONS?

Condition	General Purpose Cement	Builders Cement	Off-White Cement	High Early Strength Cement	Special Purpose Cement
General no specific requirements	✓	✓	✓		
Expose to sulphates (SO4) <600mg/litre 600-3000mg/litre >3000mg/litre	✓	✓			✓ ✓ ✓
Marine Environment		✓			✓
Early age strength required	✓		✓	✓	
Mass concrete where rapid heat evolution is to be avoided					✓

Product Guide

Bayer inorganic pigments add colour to concrete, asphalt and mortar for life.

Blue Circle® New South Wales – Life Style Colour Oxides

Off White Cement – 5% Pigment by weight of the cement content

Tuscany	Terracotta	Sepia
Beach	Sandstone	

Grey Cement – 5% Pigment by weight of the cement content

Bayferrox® Black 318	Minox® Black B100	Bayferrox® Brown 660
Bayferrox® Brown 686	Bayferrox® Red 140	Bayferrox® Red 222
Bayferrox® Yellow 420	Bayferrox® Yellow 920	

Bayer Minox Oxides are available in 500g, 1kg, 2kg, 4kg and 20kg pails as well as 20/25kg bags.

The colour chart as shown is to be used as a guide only. Shade variations in colour may occur depending on types of raw materials used, water cement ratio and application methods.

Product Guide

Product	500gm Pail	1kg Pail	2kg Pail	4kg Pail	20kg Pail	Lifestyle Colours Pails	Large Bags
Bayferrox® Black 318	✓	✓	✓	✓	✓		✓
Bayferrox® Red 222	✓	✓	✓	✓	✓		✓
Bayferrox® Red 140							✓
Bayferrox® Red 110							✓
Bayferrox® Red 130							✓
Bayferrox® Yellow 920	✓	✓	✓	✓	✓		✓
Bayferrox® Yellow 420							✓
Bayferrox® Brown 660	✓	✓	✓	✓	✓		✓
Bayferrox® Brown 686	✓	✓	✓	✓	✓		✓
Bayferrox® Brown 610							✓
Minox Black B100	✓	✓	✓	✓	✓		
Green Oxide	✓						✓
Cobalt Blue		✓					
Marigold 960							✓
Terracotta						✓	✓
Sandstone						✓	✓
Beach						✓	✓
Sepia						✓	✓
Tuscany						✓	✓
BHPL Black							✓
White Oxide Titanium							✓

For product information call 1300 OXIDES (1300 694 337)

Product Guide

NOTES

Boral
Cement
Limited

A.C.N. 008 528 523

A.B.N. 62 008 528 523

NEW SOUTH WALES

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