



# Boral Cement

## Blue Circle® Uni-Grout



### Product Data Sheet

The information stated herein and all advice given should be taken as a guide only. Both are given in good faith and are to the best of our knowledge true and accurate and are intended to give a fair description of the product and its capabilities under specific test conditions. No guarantee of the accuracy or completeness of the information is made and persons receiving the information should make their own tests to determine suitability thereof in all respects for their particular purpose. Revised: July 2010

#### Boral Cement

ABN: 62 008 528 523  
www.boral.com.au/cement

#### NSW

Clunies Ross Street, Prospect  
NSW 2148  
P.O. Box 42 Wentworthville,  
NSW 2145  
Telephone: (02) 9033 4000  
Facsimile: (02) 9033 4055

#### Victoria

Telephone: 1800 673 570

#### Tasmania

Telephone: 1800 800 953

#### Product Support

Telephone: 1800 721 258

**Blue Circle® 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.

**Blue Circle® 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.

### Features

- Low cost, multi-purpose grout.
- Can be used in applications requiring a dry pack, plastic or fluid consistency.
- Ready-to-use, premixed product - just add clean water.
- Can achieve high early strength (17 MPa after 24 hours at plastic consistency).
- An easy workable mix that will not excessively bleed or segregate under normal conditions.
- Contains no added chlorides.
- Is non-rusting nor staining.

### Typical Applications

For use in all general purpose grouting applications such as:

- Structural steel grouting (eg: base plates).
- Precast panel & pipe jointing.
- Block & void filling.
- Underpinning.

### Preparation

All surfaces must be free of dust and loose materials, oil and any substances that may interfere with the bond. The surface can be damp but not wet. Top edges must be square, not feathered.

The removal of any unsound concrete is essential.

Sufficient clearance must be allowed for the grout to flow and be compacted. Hole diameter for anchor bolts should be 50mm larger than the bolt.

**PREWETTING:** It is essential to thoroughly saturate bolt holes and soak the area to be grouted with water for 18 hours or longer. Just before grouting remove all free water.

### Mixing

High shear equipment such as a paddle should be used. Use only potable water.

Do not add cement, sand or admixtures to **Blue Circle® Uni-Grout**. Any additions must be solely at the users discretion.

Mix the product with clean water to your required consistency:

- Dry-Pack - up to 2.5 litres.
- Plastic - approx. 3 litres.
- Fluid - 4.0 litres max.

It is important to use as little water as possible to achieve the desired consistency. Do not over-water as this will reduce expansion and strength characteristics and cause excessive bleeding and possible segregation.

Place 75% of the required water in the mixing vessel and add the Grout in a steady stream while mixing. Mix for 2 minutes before adding the remaining water to bring the mix to the desired consistency and mix for a further 1 minute.

### Typical Performance Data @ 23°C: Compressive Strength (MPa):

Age in days	Mixed Consistency		
	Dry-pack	Plastic	Fluid
1	20	17	12
7	40	35	30
28	50	47	40
Plastic Expansion		1 – 3%	
Initial Set		Approx 2 hours	
Final Set		Approx 4 hours	

N.B: The above data given is based on laboratory testing under controlled conditions. Variations may occur in the field.





## Application

**Dry Pack** consistency grout should be packed into place in rises no thicker than 10mm, using wooden rammers.

**Flowable** grout may be poured into place. Take care to avoid entrapped air pockets under base plates and returns.

**Fluid** grout should only be used when pouring or pumping from one side over long distances. Assist the removal of air pockets and the flow of grout under base plates by rodding or working a length of strapping or chain under the plate.

It is not recommended practice to use a vibrator to assist grout flow.

## Caution

Do not re-temper grout by adding water or remixing it after it stiffens. For fluid grouting it is good practise when using Class A grouts to mix only what can be placed in 5 minutes. Avoid using excess water.

## Curing

Protection from early drying is essential to prevent plastic cracking. Continuous moist curing for 3 days from initial set is required to obtain maximum strength and durability. Lack of proper curing is the major cause of craze cracking of grout surfaces.

## Yield

One 20kg bag will cover 1 square metre to a depth of 12mm at fluid consistency. Bags required per cubic metre (at plastic consistency) is approx. 100 x 20kg bags.

## Availability

Blue Circle® Uni-Grout comes in 20kg plastic lined, multi-walled paper sacks.

## Cleanup & Storage

Clean all tools and equipment with water promptly after use. Contact with air and moisture will cause hydration of the cementitious product. The "shelf life" of the grout is therefore dependent on storage conditions. Store in a cool dry place and well seal any unused material. It is recommended to retest the grout before use if more than 3 months old.

## Safe Handling

This product contains cement chemicals and trace amounts of Hexavalent Chromium. Avoid generating dust. Use personal protection equipment against exposure and alkali burns. Wash product off unprotected skin immediately with water. The use of goggles, dust masks, barrier creams and rubber gloves is recommended. Wherever possible you should use mechanical aids or share the load with another person.

For further safety information consult the **Material Safety Data Sheet** for the product.



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