

# PREMIUM CEMENT

## PRODUCT DESCRIPTION

Adelaide Brighton Cement produces Premium Cement, Type GB, conforming to Australian Standard AS 3972.

Premium Cement is a blended cement manufactured to exacting standards at our Birkenhead works in Adelaide, South Australia for use in the construction and building industry, and domestic applications.

## SUPPLY

Premium Cement is available in bulk, bulk bags, and 20 kg multi-walled paper bags from the Birkenhead works and customer service centres in regional areas. Paper bags are palletised and stretch wrapped.

## SPECIFICATION

Premium Cement exceeds the minimum specification for Type GB cement given in AS 3972.

Premium Cement is manufactured under a third party certified manufacturing and supply quality assurance system to ISO 9001 (BSI Certification No FS 604665).

Premium Cement is produced from Portland cement clinker, gypsum, ground granulated blast furnace slag complying with AS 3582.2, and may contain up to 7.5% mineral addition.

## APPLICATIONS

Premium Cement is ideal for use in structural concrete, mortars, renders, grouts, and cement based products. It can also be used as general binder in applications such as soil stabilisation.

Supplementary cementitious materials (SCM's):

Premium Cement is compatible with fly ash, amorphous silica, and ground granulated blast furnace slag conforming to the relevant sections of AS 3582.

Admixtures for concrete:

Premium Cement is compatible with concrete admixtures complying with AS 1478.

Aggressive environments:

Using appropriate fine and coarse aggregate, and sufficient cement content, Premium Cement when placed, compacted, and cured correctly is a preferred binder in mildly aggressive environments.

In hostile environments, professional advice is essential to ensure all durability requirements are met.

## TYPICAL PROPERTIES

Premium Cement is often used in place of General Purpose cement (Type GP) when early strength development is not critical. Premium Cement, containing slag, has enhanced workability and may set a little slower than Type GP cement. The ultimate strengths of the two cements are similar.

Characteristics of Premium Cement compared to General Purpose cement:

- Slight increase in water demand.
- Improved workability, compactability, flowability, and plasticity.
- Marginally slower setting times.
- Less early strength development, but with appropriate curing strengths after 28 days usually exceed that of Type GP cements.
- Lower heat of hydration.
- Improved resistance to chemical attack (with adequate cement content).
- More sensitive to curing.

### Typical physical properties

Test	Premium Cement	AS 3972 requirement
<b>Fineness index (m<sup>2</sup>/kg) AS 2350.8</b>		
	390 – 460	-
<b>Setting time (hr:min) AS 2350.4</b>		
Initial	2:30	Min 00:45
Final	3:45	Max 10:00
<b>Soundness (mm) AS 2350.5</b>		
	<1	Max 5
<b>Compressive strength ISO-CEN mortar bars (MPa) AS 2350.11</b>		
3 day	24	-
7 day	35	Min 20
28 day	55	Min 35

### Typical chemical properties

Test	Units	Max AS 3972	Typical values
Sulphur trioxide	%	3.5	3.0
Loss on ignition	%	-	2.3
Chloride	%	0.1	0.05
Equivalent alkalis	%	-	0.55
Hexavalent chromium	mg/kg	-	Trace
Crystalline silica	%	-	Trace
Components:			
Portland clinker	%	-	57 – 65
Slag	%	-	30 nominal
Gypsum	%	-	5 - 7
Mineral addition	%	-	up to 7.5



# PREMIUM CEMENT

## HANDLING AND STORAGE

Transportation may be in bulk road or rail tankers, or in paper bags.

Manual handling of bag products without due care and attention may result in personal injury. Unless you have been trained in manual handling methods, it is suggested that you share the load with another person.

Premium Cement can be stored in concrete or steel silos, and bags for up to six months provided protection against ingress of moisture is observed throughout the storage of the product. To achieve optimum results, ideally use within 3 months of purchase.

Ingress of moisture can occur due to rain, liquid spillage (on or around the product) or a high humidity climate. Such exposure will degrade the performance of the product.

Do not use if the product has become hard or lumpy.

## SAFETY INFORMATION

For safety information refer to the safety datasheet for Premium Cement.

## CONTACT POINTS

For further information contact the Sales and Marketing department at:

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- Determine whether the information or product is suitable for their purpose;
- Assess and control any risks associated with the information or product; and
- Obtain professional advice in relation to the use of the information or product.

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