



HIGH EARLY STRENGTH CEMENT

PRODUCT DESCRIPTION

Adelaide Brighton Cement produces High Early Strength Cement, Type HE, conforming to Australian Standard AS 3972.

High Early Strength Cement is manufactured to exacting standards at our Birkenhead works in Adelaide, South Australia for use in precast concrete, in-situ construction, and domestic applications.

SUPPLY

High Early Strength 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

High Early Strength Cement exceeds the minimum specification for Type HE cement given in AS 3972.

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

High Early Strength Cement is produced from Portland cement clinker, gypsum, and may contain up to 7.5% mineral addition.

APPLICATIONS

High Early Strength Cement lends itself to applications where rapid early strength development is desired, for example, when formwork is to be removed early or where sufficient strength for further construction is required quickly.

The overall heat generation and rate of heat evolution will be greater than that of general purpose cements, therefore caution should be taken when specifying High Early Strength Cement for use in large structural sections or mass construction.

The use of this cement in cold weather may prove beneficial due to its rapid hardening properties.

Admixtures for concrete:

High Early Strength Cement is compatible with concrete admixtures complying with AS 1478.

TYPICAL PROPERTIES

Typical physical properties

Test	High Early Strength Cement	AS 3972 requirement
Fineness index (m²/kg) AS 2350.8		
	410 - 530	
Setting time (hr:min) AS 2350.4		
Initial	1:05	Min 0:45
Final	1:65	Max 6:00
Soundness (mm) AS 2350.5		
	1	Max 5
Compressive strength ISO-CEN mortar bars (MPa) AS 2350.11		
3 day	36 - 48	Min 25
7 day	50 - 64	Min 40
28 day	60 - 76	-

Typical chemical properties

Test	Units	Max AS 3972	Typical values
Sulphur trioxide	%	3.5	2.6
Loss on ignition	%	-	2.8 - 4.2
Chloride	%	0.1	0.01
Equivalent alkalis	%	-	0.5
Hexavalent chromium	mg/kg	-	Trace
Crystalline silica	%	-	Trace
Components:			
Portland clinker	%	-	87 - 94
Gypsum	%	-	5 - 7
Mineral addition	%	7.5	up to 7.5

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.

High Early Strength 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.



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SAFETY INFORMATION

For safety information refer to the safety datasheet for High Early Strength Cement.

CONTACT POINTS

For further information contact the Sales and Marketing department at:

Adelaide Brighton Cement Ltd
ABN 96 007 870 199
62 Elder Road
BIRKENHEAD SA 5015

Telephone: 08 8300 0300

Website: www.adelaidebrighton.com.au

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- Assess and control any risks associated with the information or product; and
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