



# HIGH EARLY STRENGTH CEMENT

## PRODUCT DESCRIPTION

Adelaide Brighton Cement produces High Early Strength Cement conforming to Australian Standard AS 3972 – 1997.

High Early Strength is a special purpose Type HE Cement.

This product is manufactured at our Angaston Works in South Australia for use in the construction and building industry and in domestic applications.

## SUPPLY

High Early Strength Cement is available in bulk, bulk bags and in 20 kg multi-walled paper bags from the Angaston Works and Customer Service Centres in regional areas. Paper bags are palletised.

## SPECIFICATION

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

All products are manufactured under a third party certified manufacturing and supply quality assurance system to AS/NZS ISO 9001:2000 (NCS Certification No 6041).

High Early Strength Cement complies with the low alkali requirement specified by ASTM C150.

High Early Strength Cement is produced from Portland Cement Clinker and Gypsum and may contain up to 5% mineral additions.

## APPLICATIONS

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

Heat rise and rate of heat evolution may be greater than for Type GP cements. Therefore, caution should be taken when specifying Type HE for use in large structural sections or in mass construction.

The use of this cement in cold weather may prove beneficial.

## HANDLING AND STORAGE

Transportation may be in bulk road or in paper bags. High Early Strength Cement can be stored in concrete or steel silos for up to six (6) months or in paper bags for three (3) months. Protection against ingress of moisture must be observed throughout the handling and storage.

## SAFETY INFORMATION

For safety information refer to the Material Safety Data Sheet for Portland & Blended Cement.

## TYPICAL PROPERTIES

### Physical Properties

Test	Typical Values	AS 3972 Requirement
Setting Time (hr:min) AS 2350.4-1987		
Initial	1:40	min 00:45
Final	2:45	max 10:00
Soundness (mm) AS 2350.5-1987		
	1	max 5
Compressive Strengths ISO-CEN mortar bars (MPa) AS 2350.11-1997		
1 Day	19 - 21	-
3 Days	35 - 37	20
7 Days	49 - 51	30
28 Days	62 - 65	-
Maximum Temperature Rise (°C) AS 2350.7-1997		
	34	-
Mortar Shrinkage (microstrain) AS 2350.13-1995		
7 Days	330	-
14 Days	500	-
21 Days	620	-
28 Days	670	-

### Chemical Properties

Test	Units	Typical Values
Sulphur Trioxide	%	2.7
Loss on Ignition	%	1.5
Chloride	%	0.003
Equivalent Alkalies	%	0.3
Hexavalent Chrome	mg/kg	2
Crystalline Silica	%	0.6
Components		
Portland Clinker	%	90 - 95
Gypsum	%	5
Mineral Addition	%	5

## CONTACT POINTS

For further information contact the Sales & Marketing Department at:

Adelaide Brighton Cement  
A.B.N. 96 007 870 199  
62 Elder Road  
BIRKENHEAD SA 5015

Telephone: (08) 8300 0300

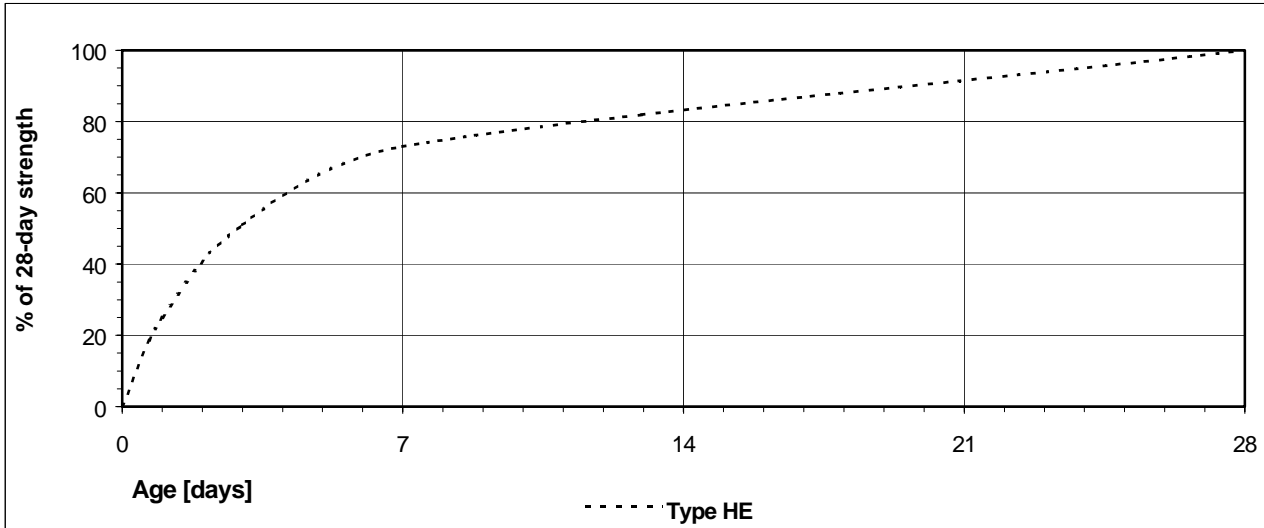
Facsimile: (08) 8341 1591

Web Site: <http://www.adelaidebrighton.com.au>

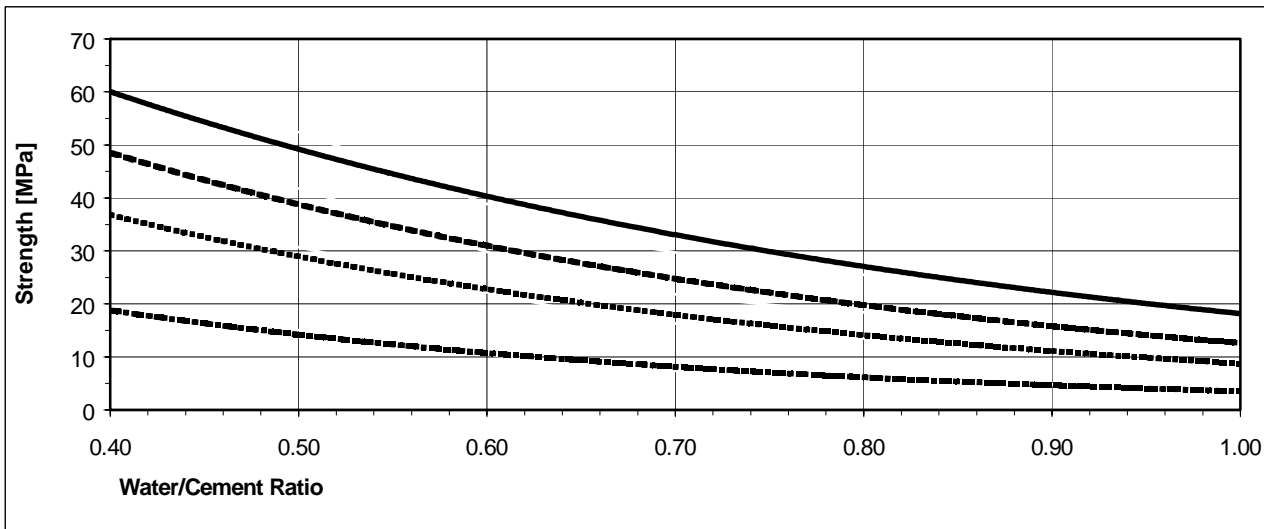


# HIGH EARLY STRENGTH CEMENT

## COMPRESSIVE STRENGTH DEVELOPMENT OF CONCRETE



## TYPE HE : WATER/CEMENT RATIO CURVES



**DISCLAIMER**

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Incorrect use of any product, or failure to adhere to recommendations in this sheet, or those of any supplier, and any associated safety information may result in serious damage or injury.