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CI/SfB	Eq2	

Castle Quickcem is manufactured to a Technical Specification and Quality Assurance System of Factory Production Control based on BS EN ISO 9002 : 2000.

Castle Quickcem is a Portland cement containing calcium sulfo-aluminate, specially developed to give quick setting and hardening characteristics. At present there is no appropriate British standard for this product.

Applications

Castle Quickcem is a quick setting and hardening Portland based cement for repair and maintenance applications where the increased speed of set and strength are beneficial in both mortar and concrete, allowing normal services to be brought back into operation after only a few hours. This makes Castle Quickcem ideal for:

- fixing manhole covers
- fitting ridge tiles
- patch repairs
- concrete paths/steps
- repairing rendering and floor screeds
- fixing fence posts and railings

Depending on the mix used and the ambient temperature, workability will be retained for between 10 and 20 minutes. It is important that the concrete, mortar or screed is made without prolonged mixing and is placed and fully compacted as soon as possible after mixing. (The amount of materials mixed in any one operation should be small enough to ensure that all the material can be used and the mixing equipment thoroughly cleaned out before the mix has set.)

Note: The rapid setting nature of this product makes it unsuitable for large concrete slabs or large screed areas as they cannot be placed and finished in the available time.

Castle Ordinary Portland Cement (OPC) may be added, although setting times and strength may change depending on the quantity of Castle OPC added. For further product specifications please contact Castle's Technical Helpline on 0845 722 7853.

Strength

Typical strengths and setting times	
Surface area	550m ² /kg
SO ³	8.5%
BS EN 196-3 (w/c @ 0.4) setting time	7mins
BS EN 196-1 mortar strengths at:	
1 hr	7N/mm ²
4 hrs	13N/mm ²
8 hrs	14N/mm ²
1 day	16N/mm ²
2 days	24N/mm ²
7 days	35N/mm ²
28 days	40N/mm ²
Air content (BS EN 196-1 mortar)	6%
Colour (Tri-stimulus Y)	34%

Quality

Like all other Castle Cement products, the production of Castle Quickcem is subject to stringent quality control. Constant monitoring of all components ensures a consistent quality.

Guide to mix design

Suitable mix for Castle Quickcem in concrete

Material	Proportions by volume	Yield per 25kg bag of cement	Batch weights per cement bag
General purpose mix – for most uses except for foundation work			
Castle Quickcem	1	0.08m ³	25kg
Concreting sand	2		55kg
20mm Aggregate	3		90kg
(Combined Aggregates)	(4)		(145kg)
Foundation mix – for footings, foundations and bases for precast paving			
Castle Quickcem	1	0.09m ³	25kg
Concreting sand	2.5		65kg
20mm Aggregate	3.5		105kg
(Combined Aggregates)	(5)		(170kg)

Suitable mix for Castle Quickcem in screed

Material	Proportions by volume	Yield per 25kg bag of cement	Batch weights per cement bag
Castle Quickcem	1	0.06m ³	25kg
Dry screeding sand	3.5		112.5kg

Suitable mix for Castle Quickcem in mortar

Material	Proportions by volume
Designation (III) mortar for general construction	
Castle Quickcem	1
Building sand	5 - 6 plus air-entraining admixture if required
Notes:	
Mortar should be mixed for a minimum of two minutes before use.	
Remixing after the mortar has begun to set results in a decline in strength development.	
Therefore only batches which can be used within the expected working time should be mixed.	

Admixtures

Preliminary tests are recommended before the use of additives or a change in the type of sand.

Quickcem is a registered trademark owned by Castle Cement Limited.

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