

Code	QOP-QUL-0102-61	Revision date	14-Nov-17	Version	2
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# Cement Quality Certificate

Cement Type: Portland Cement  
Strength Class: CEM I 42,5 N  
Complies With: BS EN 197-1:2011  
ES 4756-1:2013

Dispatch Date: **18/1/2022** 72351621  
Project Name :

**Standard Composition Requirements**

Chemical Composition		Test Method BS EN 196-2		Standard Requirements	
		Results			
Silicon Dioxide	SiO <sub>2</sub>	20.03	%		
Aluminium Trioxide	Al <sub>2</sub> O <sub>3</sub>	4.10	%		
Ferric Oxide	Fe <sub>2</sub> O <sub>3</sub>	4.08	%		
Calcium Oxide	CaO	61.62	%		
Magnesium Oxide	MgO	2.38	%		
Sulphate	SO <sub>3</sub>	3.12	%	3.50%	Max.
Potassium Oxide	K <sub>2</sub> O	0.28	%		
Sodium Oxide	Na <sub>2</sub> O	0.19	%		
Chloride	Cl	0.04	%	0.10%	Max.
Loss On Ignition	LOI	3.46	%	5.00%	Max.
Insoluble Residue	IR	0.75	%	5.00%	Max.
Tricalcium Aluminates	C <sub>3</sub> A	3.97	%		

**Physical and Mechanical Properties**

Compressive Strength		Test Method BS EN 196-1		Standard Requirements	
		Results			
2 days (N/mm <sup>2</sup> )		-		10.0 N/mm <sup>2</sup>	Min.
28 days (N/mm <sup>2</sup> )		-		42.5 N/mm <sup>2</sup>	Min.

**Setting Time** Test Method BS EN 196-3

		Results		Standard Requirements	
Standard Consistency (%)		26.0	%	-	
Initial Setting Time (minutes)		165		60 minutes	Min.
Final Setting Time (minutes)		255		-	

**Soundness** Test Method BS EN 196-3

		Results		Standard Requirements	
Expansion (mm)		1.00		10.0 mm	Max.

**Fineness** Test Method BS EN 196-6

		Results		Standard Requirements	
Specific Surface (cm <sup>2</sup> /g)		3180		-	

Approved by

