



Product Specifications

Portland Cement	Standard
CEM I 42.5 N	BS EN 197-1
Type II (Moderate Sulfate Resistance)	ASTM C150
پ ۴۲/۵.۲	INSO 389

Cement Chemical Composition, %wt

Components	KMCC Range	Common Requirement, INSO 389
SiO ₂	20.5 Min	-
Al ₂ O ₃	5.0 Max	6.0 Max
Fe ₂ O ₃	4.0 Max	6.0 Max
CaO	63.0 Min	-
MgO	1.8 Max	6.0 Max
SO ₃	2.9 Max	3.0 Max
Total Alkali	1.2 Max	-
Loss of Ignition (LOI)	2.0 Max	3.5 Max
Insoluble Residue (IR)	0.6 Max	1.5 Max
Lime Saturation Factor (LSF)	91.0 Min	-
Tricalcium Silicate (C3S)	52.0 Min	-
Dicalcium Silicate (C2S)	24.0 Max	-
Tricalcium Aluminate (C3A)	7.0 Max	8.0 Max
Tetracalcium Alumino Ferrite (C4AF)	10.0 Min	-

Cement Physical and Mechanical Specifications

Specification Surface (Blaine), m ² /kg	290 Min	260-360
Residue on Sieve 45 micron mesh, %	15.0 Max	-
Autoclave Expansion, %	0.4 Max	0.8 Max
Soundness		
Le Chatelier Expansion, (mm)	2.0 Max	-
Initial Setting Time, minutes	100 Min	45 Min
Final Setting Time, minutes	200 Max	375 Max
Compressive Strength, MPa		
2 days	19.0 Min	10.0 Min
3 days	-	-
7 days	-	-
28 days	45.0 Min	42.5 Min 62.5 Max

- Calculation of potential cement phase composition, statistical conformity criteria and uncertainties are according to ASTM & EN standards.

Q.C Manager:

