



Quality Control Department

**Portland Cement Type 42.5N**

**Chemical specification**

	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	SO <sub>3</sub> %	Total alkali %	LoI %	cl %	F.CaO %	I.R %
Shahrekord Cement	21.20±0.20	5.25±0.15	3.85±0.15	65.00±0.20	≤1.65	≤1.70	≤0.70	≤1.20	≤0.03	≤1.30	≤0.65
ISIRI-389	-	-	-	-	≤5.0	≤3.5	-	≤3.0	-	-	≤0.75
BS ENV 197-1	-	-	-	-	≤5.0	≤3.5	-	≤5.0	≤0.10	-	≤5.0
ASTM C150	-	-	-	-	≤6.0	≤3.5	-	≤3.0	-	-	≤0.75

**Physical specification**

	Blain (cm <sup>2</sup> /gr)	Setting time Init (min)	Setting time Final (min)	Soundness(exp) (mm)	exp %	Compr.Strength (MN/m <sup>2</sup> )			
						2 Day	3 Day	7 Day	28 Day
Shahrekord Cement	≥3000	90±10	170±20	≤2.0	≤0.15	≥15.0	-	≥37.0	≥54.0
ISIRI-389	≥2800	≥45	≤360	-	≤0.8	≥10.0	-	-	≥42.5, ≤62.5
BS ENV 197-1	-	≥60	-	≤10.0	-	≥10.0	-	-	≥42.5, ≤62.5
ASTM C150	≥2800	≥45	≤375	-	≤0.8	-	≥13.7	≥23.0	-

