



IN THE NAME OF GOD
ILAM CEMENT CO.

Quality Control Dept.

ILAM CEMENT
 Date:23-July-2020

Chemical & Physical Analysis of Cement Type I-425

ENAC CERTIFICACION N° OC-P/389
 CERTIFICADO N° / CERTIFICATE N°
 1170/CPR/CT.03584



Composition	REQUIREMENT			%Mass Fraction
	ACCORDING TO			
	ISIRI 389	ASTM C150	EN 197-1	

CHEMICAL ANALYSIS

Loss on Ignition	%	LOI	Max3.00	Max3.00	Max 5.00	1.29
Silicon Dioxide	%	SiO2	-	-	-	21.05
Aluminium Oxide	%	Al2O3	-	-	-	5.31
Ferric Oxide	%	Fe2O3	-	-	-	4.08
Calcium Oxide	%	CaO	-	-	-	63.15
Magnesium Oxide	%	MgO	Max 5.00	Max 6.00	-	2.1
Sulfur Trioxide	%	SO3	Max 3.5	Max 3.5	Max 3.5	2.11
Sodium Oxide	%	Na2O	-	-	-	0.21
Potassium Oxide	%	K2O	-	-	-	0.63
Chlorides	%	Cl	-	-	-	0.02
TOTAL		Total	-	-	-	99.95
Insoluble Residue	%	IR	Max 0.75	Max 1.5	Max 5.0	0.22
Free CaO	%	F.CaO	-	-	-	1.98
Lime Saturation Factor	%	LSF	-	-	-	90.89
Silica ration	%	SIM	-	-	-	2.24
Alumina ratio	%	ALM	-	-	-	1.30
Tricalcium Silicate	%	C3S	-	-	-	49.52
Dicalcium Silicate	%	C2S	-	-	-	23.46
Tricalcium Aluminate	%	C3A	-	-	-	7.17
Calcium Alumino Ferrite	%	C4AF	-	-	-	12.40
C3A + C3S	%	-	-	-	-	56.69
C4AF + 2C3A	%	-	-	-	-	26.74
Alkalies (Na2O + 0.658 K2O)	%	-	-	-	-	0.62

PHYSICAL TESTS

Fineness		-				
Blaine Test	Cm2/gr	-	Min 2800	Min 2800	-	3650
Residue On Seive 45 μ	%	-	-	-	-	11.2
Residue On Seive 90 μ	%	-	-	-	-	3.1
Water for Normal Consistency	%	-	-	-	-	
Weight Liter	gr/l	-	-	-	-	
Setting Time - Vicat Test		-	-	-	-	
Initial	Minute	-	Min 45	Min 45	Min 60	120
Final	Hour	-	Max 6	Max 6	Max 6	03:10
Compressive Strength						
2 days	kgr/cm3	-	Min 100	Min 100	Min 100	215
3 days	" "	-	-	-	-	
7 days	" "	-	-	-	-	401
28 days	" "	-	Min 425	Min 425	Min 425	5.32
Autoclave Expansion	%	-	Max 0.8	Max 0.8	Max 0.8	0.03

NO, 5, Anushirvani St, thaghavi st., ferdowsi ave., tehran, postcode 1145687813, iran Tel: +982166341471-66341478 Fax:+982166341483

www.irancementco.com e-mail:info@ilamcementco.com

QC Manager
 Mohammad javad Ghadimi

Factory Manager Bahram
 Shafaeian