



ILAM CEMENT

Date:23-July-2020

IN THE NAME OF GOD
ILAM CEMENT CO.

Quality Control Dept.

Chemical & Physical Analysis of Cement Type II



CERTIFICADO N° / CERTIFICATE N°
1170/CPR/CT.03584



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

CHEMICAL ANALYSIS

Loss on Ignition	%	LOI	Max3.00	Max3.00	-	1.3
Silicon Dioxide	%	SiO2	Min 20.0	Min 20.0	-	21.05
Aluminium Oxide	%	Al2O3	Max 6.0	Max 6.0	-	5.31
Ferric Oxide	%	Fe2O3	Max 6.0	Max 6.0	-	4.19
Calcium Oxide	%	CaO	-	-	-	63.15
Magnesium Oxide	%	MgO	Max 5.00	Max 6.00	-	2.19
Sulfur Trioxide	%	SO3	Max 3.0	Max 3.0	-	1.92
Sodium Oxide	%	Na2O	-	-	-	0.21
Potassium Oxide	%	K2O	-	-	-	0.59
Chlorides	%	Cl	-	-	-	0.02
TOTAL		Total	-	-	-	99.93
Insoluble Residue	%	IR	Max 0.75	Max 1.5	-	0.26
Free CaO	%	F.CaO	-	-	-	1.99
Lime Saturation Factor	%	LSF	-	-	-	90.99
Silica ration	%	SIM	-	-	-	2.22
Alumina ratio	%	ALM	-	-	-	1.27
Tricalcium Silicate	%	C3S	-	-	-	49.90
Dicalcium Silicate	%	C2S	-	-	-	23.17
Tricalcium Aluminate	%	C3A	Max 8.0	Max 8.0	-	6.98
Calcium Alumino Ferrite	%	C4AF	-	-	-	12.74
C3A + C3S	%	-	-	-	-	56.89
C4AF + 2C3A	%	-	-	-	-	26.70
Alkalies (Na2O + 0.658 K2O)	%	-	-	-	-	0.60

PHYSICAL TESTS

Fineness		-				
Blaine Test	Cm2/gr	-	Min 2800	Min 2800	-	3650
Residue On Seive 45 μ	%	-	-	-	-	9.50
Residue On Seive 90 μ	%	-	-	-	-	1.40
Water for Normal Consistency	%	-	-	-	-	
Weight Liter	gr/l	-	-	-	-	
Setting Time - Vicat Test		-	-	-	-	
Initial	Minute	-	Min 45	Min 45	-	160
Final	Hour	-	Max 6	Max 6	-	03:30
Compressive Strength						
2 days	kgr/cm3	-	-	-	-	
3 days	" "	-	Min 100	Min 100	-	255
7 days	" "	-	Min 175	Min 175	-	387
28 days	" "	-	Min 315	Min 315	-	505
Autoclave Expansion	%	-	Max 0.8	Max 0.8	-	0.01

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