



شرکت سیمان قشم
سهامی خاص

Quality Certificate

Sample: Portland Cement Clinker (OPC OR Type I)

According: INSO 23213

Property	Min	Max	Spec.Limit For Cement (INSO 389)
Silicon dioxide %SiO ₂	20.5	21.5	
Aluminium Oxide %Al ₂ O ₃	4.00	6.00	
Ferric Oxide %Fe ₂ O ₃	3.50	4.50	
Calcium Oxide %CaO	64.0	65.5	
Mangnesium Oxide %MgO	3.00	4.00	6.0 Max
Sulphur Trioxide %SO ₃	0.80	1.30	3.0 Max
Choloride %Cl	0.01	0.04	
Total Alkalies(Na ₂ O+0.658 %K ₂ O)	0.90	1.10	
Loss On Ignition %L.O.I	0.20	0.50	3.0 Max
Insoluble Residue %I.R	0.15	0.30	1.5 Max
Free Lime %F. CaO	1.00	1.70	
Lime Saturation Factor LSF	93.0	96.0	
Silica Module SIM	2.30	2.60	
Alomina Moddule ALM	1.10	1.40	
Tricalcium Silicate %C ₃ S	56.0	60.0	
Dicalcium Silicate %C ₂ S	13.0	22.0	
Tricalcium Aluminate %C ₃ A	5.50	7.00	
Tetracalcium Aluminoferrite %C ₄ AF	11.0	14.5	

PHYSICAL & REACTIVITY

2 Days Reactivity @ Fineness of 8% at 45 Min.At 2.6±0.2% SO ₃ Content . Mpa	25	30	>10
28 Days Reactivity @ Fineness of 8% at 45 Min.At 2.6±0.2% SO ₃ Content . MPa	44	48	42.5-62.5
Moisture %	0.10	0.30	
Litri Weight (Kg/L)	1.30	1.40	

Size Distribution :

0.0 - 1.0 mm %	1.00	10.0	
1.0 - 5.0 mm %	10.0	20.0	
5.0 - 30.0 mm %	20.0	60.0	
30.0 - 50.0 mm %	0.00	5.00	

REMARKS :

LSF = 100 (CaO) / (2.80 SiO₂ + 0.65 Fe₂O₃ + 1.18 Al₂O₃)

C₃S = 4.07 CaO - (7.6 SiO₂ + 6.718 Al₂O₃ + 1.43 Fe₂O₃ + 2.852SO₃)

C₂S = 2.867SiO₂ - 0.754 C₃S

C₃A = 2.65 Al₂O₃ - 1.692 Fe₂O₃

C₄AF = 3.043 Fe₂O₃

