EL SEWEDY INDUSTRIES

EL SEWEDY CEMENT

Cement Quality Certificate

Cement Type:	Portland cement EN 197-1 – CEM I 42,5 N
Strength Class:	42,5 N
COMPLIES WITH:	BS EN197-1:2011 & ES 4756-1:2022

Date of Issue : Jun-26

Chemical & Standard Composition Requirements

Chemical Composition [Test Method: BS EN 196-2:2025]

		Results	Standard Requirements
Silicon Oxide	SiO_2	19.17 %	
Aluminium Oxide	Al_2O_3	4.61 %	
Ferric Oxide	Fe_2O_3	4.19 %	
Calcium Oxide	CaO	62.35 %	
Magnesium Oxide	MgO	2.08 %	
Sulphate	SO_3	2.78 %	3.50% Max.
Potassium Oxide	K_2O	0.29 %	
Sodium Oxide	Na_2O	0.41 %	
Chloride	Cl	0.06 %	0.10% Max.
Insoluble Residue	IR	0.61 %	5.00% Max.
Chromium VI	Cr^{+6}	0.55 ppm	2 ppm Max.
Loss On Ignition	LOI	3.11 %	5.00% Max.
Free Lime	F. CaO	2.08 %	
Tricalcium Silicates	C_3S	54.81 %	
Tricalcium Aluminates	C_3A	5.13 %	

Physical Properties

Setting Time [Test Method BS EN 196-3:2025]

	Results	Standard Requirements	
Initial Time (minutes)	195	60 minutes	Min.
Final Time (minutes)	255		
Standard Consistency (%)	27.95		

Compressive Strength [Test Method BS EN 196-1:2005]

	Results	Standard Requirements	
2 days (N/mm^2)	23.69	10.0 N/mm^2	Min.
28 days (N/mm^2)	49.65	42.5 N/mm^2	Min.

Fineness [Test Method BS EN 196-6:2005]

	Results	Standard Requirements
Specific Surface (cm^2/g)	3403	

Soundness Test Method: BS EN 196-3:2005

	Results	Standard Requirements	
Expansion (mm)	0.00	10.0 mm	Max.

COMMENTS:

All the above tests comply with the above mentioned standard requirements [BS EN197-1:2011 & ES 4756-1:2022].

Calculation Method: C3A=2.65 Al2O3 - 1.692 Fe2O3 , C3S= (4.07(CaO-F.CaO)-7.6*SiO2-6.71*Al2O3-1.43*Fe2O3-2.852*SO3)*

Approved by

ElSewedy Cement PASSED Date Quality Assurance

Mohamed Salah

Quality Manager