

CEMENT PROUDUCTS

CEM I 42.5 R



HIGH EARLY STRENGTH PORTLAND CEMENT, SUITABLE FOR STRUCTURAL CONCRETE WORKS, PRECAST ELEMENTS, AND APPLICATIONS REQUIRING RAPID STRENGTH DEVELOPMENT.



**According to Egyptian standard norm 4756-1/2022
and technically comply with BS EN 197-1/ 2011**

CEMENT CERTIFICATE

PORTLAND CEMENT CEMI 42.5 R

DESCRIPTION		LIMITATIONS BS EN 197 – 1 (2011) and ES 4756 – 1 (2013)	OBTAINED RESULTS
PHYSICAL TEST			
Soundness (Expansion) (mm)		≤ 10	0.0
Fineness , Blaine (cm²/g)		..	4000
Insoluble Residue (%)		≤ 5.0	3.7
Intial setting time (minute)		≥ 45	155
Water consistency (%)		..	28.0
Compressive Strength (Mpa)	2 days	≥ 20	24.5
	28 days	≥ 42.5	54.0
CHEMICAL ANALYSIS			
Silicone Dioxide (SiO2) %		..	18.91
Aluminium Oxide (Al2O3) %		..	4.65
Ferric Oxide (Fe2O3) %		..	3.70
Calcium Oxide (CaO) %		..	63.95
Magnesium Oxide (MgO) %		..	1.05
Sulfer Trioxide (SO3) %		≤ 3.5	3.50
Sodium Oxide (Na2O) %		..	0.34
Potassium Oxide (K2O) %		..	0.25
Chloride (Cl) %		≤ 0.1	0.05
Loss On Ignition (LOI) %		≤ 5.0	3.40