

CEMENT CERTIFICATE

PORTLAND CEMENT CEM I (42.5 N)

DESCRIPTION		LIMITATIONS BS EN 197 - 1 (2011) and ES 4756 - 1 (2022)	OBTAINED RESULTS
PHYSICAL TEST			
Soundness (Expansion) (mm)		≤ 10	0.0
Fineness , Blaine (cm^2/g)		..	3600.0
Insoluble Residue (%)		≤ 5.0	3.2
Intial setting time (minute)		≥ 60	165.0
Water consistency (%)		..	27.4
Compressive Strength (Mpa)	2 days	≥ 10	17.5
	28 days	≥ 42.5	46.5
CHEMICAL ANALYSIS			
Silicone Dioxide (SiO ₂) %		..	19.34
Aluminium Oxide (Al ₂ O ₃) %		..	4.54
Ferric Oxide (Fe ₂ O ₃) %		..	4.52
Calcium Oxide (CaO) %		..	61.63
Magnesium Oxide (MgO) %		..	1.15
Sulfer Trioxide (SO ₃) %		≤ 3.5	3.30
Sodium Oxide (Na ₂ O) %		..	0.23
Potassium Oxide (K ₂ O) %		..	0.24
Chloride (Cl) %		≤ 0.1	0.05
Loss On Ignition (LOI) %		≤ 5.0	3.70
Hexavalent chromium (CR +6) PPM		≤ 2	1.90

Quality Manager
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