

شهادة أسمنت بورتلاندي

PORTLAND CEMENT CERTIFICATE

Type of Cement : CEM-I 42.5 N أسمنت بورتلاندي س إم 1 42.5 ن
 Standard : BS EN 197-1:2011
 Week No. : 07/20
 Sample Date : 12-18.02.2020 تاريخ العينة :
 Date of Issue : 21-Mar-20

Parameters	Units	Results %	Specification	
Chemical Test Results				
Loss On Ignition	LOI	%	3.14	Max. 5.0 %
Silicon Dioxide	SiO ₂	%	20.10	
Aluminium Oxide	Al ₂ O ₃	%	4.69	
Ferric Oxide	Fe ₂ O ₃	%	3.59	
Calcium Oxide	CaO	%	62.81	
Magnesium Oxide	MgO	%	1.77	Max. 5.0 %
Potassium Oxide	K ₂ O	%	0.56	
Sodium Oxide	Na ₂ O	%	0.23	
Equivalent Alkali (Na ₂ O + 0.658* K ₂ O)		%	0.60	
Sulphur Trioxide	SO ₃	%	2.56	Max 3.5 %
Chloride	Cl ⁻	%	0.018	Max 0.10 %
Insoluble Residue	IR	%	0.32	Max. 5.0 %
Free Lime	Free CaO	%	1.06	
Cement Phases				
Tri Calcium Silicate	C ₃ S	%	54.68	
Di Calcium Silicate	C ₂ S	%	16.46	
Tri Calcium Aluminate	C ₃ A	%	6.36	
Tetra Calcium Alumino ferrate	C ₄ AF	%	10.92	
Physical Test Results				
Fineness (Specific Surface)	m ² /kg		352	
+45 µm Residue	%		9.30	
Specific Gravity			3.15	
Initial Setting Time (IST)	Minutes		223	Min. 60 minutes
Final Setting Time (FST)	Minutes		251	
Soundness -Le-Chatlier	mm		0.4	Max. 10 mm
Compressive Strength (N/mm²)				
2 Days	N/mm ²		19.5	Min 10
7 Days	N/mm ²		34.0	
28 Days	N/mm ²		46.3	Min. 42.5 & Max. 62.5

We hereby certify that the above described PORTLAND CEMENT - CEM I 42.5 N, at the time of consignment, meets the chemical and Physical requirements of the BS EN 197-1:2011.

D. Balasubramanian
 Quality Control Manager
 (D. Balasubramanian)

