Royal
El Minya Cement Co.

QUALITY CERTIFICATE

Cement Type : CEM I 52.5 N White

Sample Date : Dec .2024

Chemical & Physical Properties

Cement Characteristics		Standard	Result	Specifications	Units
SiO_2		EN 196-2	21.92	-	%
Al_2O_3			2.65	-	%
Fe_2O_3			0.196	-	%
CaO			66.65	-	%
K_2O			0.08	-	%
Na_2O			0.22	-	%
Alkalis content "Na_2O Equ."			0.20		%
Loss in ignition		EN 196-2	4.20	≤ 5.0	%
F.CaO		EN 196-2	2.87		%
Magnesia (MgO)		EN 196-2	0.35		%
Sulphur Trioxide (SO_3)		EN 196-2	3.44	≤ 4.0	%
Chloride		EN 196-2	0.042	≤ 0.10	%
Insoluble Residue		EN 196-2	0.83	≤ 5.0	
Whiteness (CIE 1931)	Y		86.20		%
	L*		94.36		
Fineness Blaine (cm^2/g)		EN 196-6	4002		cm^2/g
Initial Setting time (min)		EN 196-3	195	≥ 45	min
Final Set (min)		EN 196-3	245		min
Expansion "Le Chatelier" (mm)		EN 196-3	1.0	≤ 10	mm
C_3S		Bogue	65.10		%
C_2S			14.09		%
C_3A			6.69		%

Compressive Strength

	Standard	Result	Limits	Units
2 days	EN 196-1	35.50	≥ 20.0	N/mm^2
28 days		72.82	≥ 52.5	

The above results complying with requirements EN 197-1/2011

Approval by:
Lab. &Q.C. Team

AVGCM Dec.2024