

QUALITY CERTIFICATE

BRAZIL

Sampling Date : 01-08-2024

Analysis Date : 02-08-2024

Cement Type : CEM II / B-LL 42.5 N White

Chemical & Physical Properties

Cement Characteristics		Standard	Result	Specifications	Units
SiO ₂		EN 196-2	18.58	-	%
Al ₂ O ₃			2.74	-	%
Fe ₂ O ₃			0.116	-	%
CaO			64.17	-	%
K ₂ O			0.12	-	%
Na ₂ O			0.13	-	%
Alkalis content "Na ₂ O Equ."			0.21		%
Loss in ignition			11.10		%
F.CaO			2.42		%
Magnesia (MgO)		EN 196-2	0.19		%
Sulphur Trioxide (SO ₃)		EN 196-2	3.13	≤ 3.5	%
Chloride		EN 196-2	0.065	≤ 0.10	%
Whiteness (CIE 1931)	Y		86.28		%
	L*		94.39		
Fineness Blaine (cm ² /g)		EN 196-6	4568		cm ² /g
Initial Setting time (min)		EN 196-3	153	≥ 60	min
Final Set (min)		EN 196-3	226		min
Expansion "Le Chatelier" (mm)		EN 196-3	1.5	≤ 10	mm
C ₃ S		Bogue	82.55		%
C ₃ A			7.07		%

Compressive Strength

	Standard	Result	Limits	Units
2 days	EN 196-1	22.93	≥ 10.0	N/mm ²
28 days		48.50	42.5 ≤ R ≤ 62.5	

The above results complying with requirements EN 197-1/2011 & ES 4756-1/2013

CCP01082024

Approval by:

Lab. & Q.C. Manager

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