Cement Type: Poland CEM I 52.5R

Cement Characteristics		Standard	Result	Specifications
SiO_2		EN 196-2	22.72	-
Al_2O_3			3.11	-
Fe_2O_3			0.210	-
CaO			67.61	-
K_2O			0.03	-
Na_2O			0.13	-
Alkalis content "Na_2O Equ."			0.15	
Loss in ignition		EN 196-2	2.90	≤ 5
F.CaO		EN 196-2	3.00	
Magnesia (MgO)		EN 196-2	0.38	
Sulphur Trioxide (SO_3)		EN 196-2	2.38	≤ 4.0
Chloride		EN 196-2	0.039	≤ 0.10
Insoluble Residue		EN 196-2	0.70	≤ 5
Whiteness (CIE 1931)	Y		86.30	%
	L*		94.40	%
Fineness Blaine (cm^2/g)		EN 196-6	5215	
Initial Setting time (min)		EN 196-3	90	≥ 45
Final Set (min)		EN 196-3	155	
Expansion "Le Chatelier" (mm)		EN 196-3	1.0	≤ 10
C3S		Bogue	62.31	
C2S			11.66	
C3A			7.89	

Compressive Strength

	Standard	Result	Limits
2 days	EN 196-1	36.00	≥ 30
28 days		70.15	≥ 52.5

Cement Type: CEM I 52.5N

Cement Characteristics	Result	Specifications
SiO_2	23.60	-
Al_2O_3	2.70	-
Fe_2O_3	0.21	-
CaO	66.80	-
K_2O	0.03	-
Na_2O	0.12	-
Alkalis content "Na_2O Equ."	0.14	
Loss in ignition	3.20	≤ 5.0
F.CaO	3.50	
Magnesia (MgO)	0.40	
Sulphur Trioxide (SO_3)	2.50	≤ 4.0
Chloride	0.042	≤ 0.10
Insoluble Residue	0.90	≤ 5.0
Whiteness (CIE 1931) Y	86.00	%
Fineness Blaine (cm^2/g)	4682	
Initial Setting time (min)	160	≥ 45
Final Set (min)	200	
Expansion "Le Chatelier" (mm)	2.0	≤ 10
C3S	52.70	
C2S	28.21	
C3A	6.80	

Compressive Strength

	Result	Limits
2 days	29.35	≥ 20
28 days	58.20	≥ 52.5

Cement Type: CEM II/B-LL 42,5 R White

Cement Characteristics		Result	Specifications	Units
SiO_2		18.28	-	%
Al_2O_3		2.50	-	%
Fe_2O_3		0.19	-	%
CaO		64.10	-	%
K_2O		0.02	-	%
Na_2O		0.08	-	%
Alkalis content "Na_2O Equ."		0.09		%
Loss in ignition		11.03		%
F.CaO		3.40		%
Magnesia (MgO)		0.38		%
Sulphur Trioxide (SO_3)		2.00	≤ 4.0	%
Chloride		0.042	≤ 0.10	%
Insoluble Residue		0.65		
Whiteness (CIE 1931)	Y	87.50		%
	L*	94.92		
Fineness Blaine (cm2/g)		5242		cm2/g
Initial Setting time (min)		165	≥ 60	min
Final Set (min)		210		min
Expansion "Le Chatelier" (mm)		2.0	≤ 10	mm
C3S		85.35		
C3A		6.30		

Compressive Strength

	Result	Limits	Units
2 days	24.20	≥ 20.0	N/mm^2
28 days	52.03	42.5 ≥R ≤ 62.5	