

PORTLAND CEMENT CLINKER Ref #1 TYPICAL PROPERTIES

	Unit	Clinker Specification Results		Typical Properties	Testing Method
		Min.	Max.		
Magnesium Oxide (MgO)	%	1.1	2	≤ 3	XRF
Sulfur Trioxide (SO ₃)	%	0.4	0.78	≤ 1	XRF
Free Lime (F.CaO)	%		1.5	≤ 1.5	Wet Method
Loss on Ignition (LOI)	%	0.3	1.5	≤ 1.5	EN 196-2
Combined Alkalies	%		1	≤ 1.0	Calculated
Tricalcium Silicate (C3S)	%	55	66	≥ 55.0	Calculated
Dicalcium Silicate (C2S)	%	9	17	≥ 9.0	Calculated
Tricalcium Aluminate (C3A)	%	5	8	≥ 5.0	Calculated
Tetra Calcium Aluminoferrite (C4AF)	%	11	15	≥ 10.0	Calculated
Lime Saturation Factor (LSF)	%	-	-	93-97	Bogue Calculation Method

Notes:

$$C3S = 4.071 \times CaO - 7.6 \times SiO_2 - 6.718 \times Al_2O_3 - 1.43 \times Fe_2O_3$$

This Clinker is chemically suitable to produce OPC (CEM I) Grade 42.5N Cement as per EN 197-1 Standard Specification