



Cement Data Sheet

Manufactured in: - Lansdown, Killaskillen, Kinnegad, Co. Westmeath, Ireland.

Date: 20/02/2020

Portland Cement

I.S EN 197-1:2011	CEM II/B-L 32,5 R (White)	19/07/2002
	Certificate of Conformity No: 0856 - CPR - 0142	
CE	CEM II/B-L 32,5 R (White)	19/07/2002



Declared Composition (%)

<u>Constituents</u>		<u>Calcium Sulfate</u>	
Portland Cement Clinker (K).....	65 - 79	Gypsum.....	3.0 - 5.0
Granulated blastfurnace slag (S).....	-	Other source of Calcium Sulfate.....	-
Natural pozzolana (P).....	-		
Natural calcined pozzolana (Q).....	-		
Siliceous fly ash (V).....	-	<u>Additives</u>	
Calcareous fly ash (W).....	-	Grinding Aid.....	< 0.1
Burnt Shale (T).....	-	Ferrous Sulphate.....	< 0.1
Limestone (L).....	21 - 35		

Compressive Strengths (MPa)

<u>Time</u>	<u>Test Method</u>	<u>Mean Values</u>	<u>Range of Values</u>
2 Day	IS EN 196 - 1	20.0	16.5 - 22.5
7 Day	IS EN 196 - 1	32.1	29.5 - 35.5
28 Day	IS EN 196 - 1	43.2	40.0 - 48.0

Physical Properties

<u>Property</u>	<u>Test Method</u>	<u>Mean Values</u>	<u>Range of Values</u>
Specific density (Kg/M ³)	IS EN 196 - 6	3110	3050 - 3200
Specific surface (M ² /Kg)	IS EN 196 - 6	549	500 - 600
Initial setting time (min)	IS EN 196 - 3	147	90 - 200
Soundness (mm)	IS EN 196 - 3	0.5	0.0 - 3.0
Whitness L*		91.1	90.0 - 94.0

Chemical Properties

<u>Property</u>	<u>Test Method</u>	<u>Mean</u>	<u>Range</u>	<u>Property</u>	<u>Test Method</u>	<u>Mean</u>	<u>Range</u>
LOI (%)	IS EN 196 - 2	14.6	12.0 - 16.0	SO ₃ (%)	IS EN 196 - 2	3.2	2.0 - 3.5
IR (%)	IS EN 196 - 2	1.0	0.0 - 3.0	K ₂ O (%)	IS EN 196 - 2	0.20	0.10 - 0.90
SiO ₂ (%)	IS EN 196 - 2	15.5	14.5 - 18.0	Na ₂ O (%)	IS EN 196 - 2	0.06	0.00 - 0.25
Al ₂ O ₃ (%)	IS EN 196 - 2	2.5	2.0 - 3.0	Cl (%)	IS EN 196 - 2	0.006	0.00 - 0.08
Fe ₂ O ₃ (%)	IS EN 196 - 2	0.1	0.0 - 1.5	FCaO (%)	ISO 29581 - 2	1.3	0.5 - 3.0
CaO (%)	IS EN 196 - 2	70.5	68.0 - 73.0	Na ₂ O _{eqv} (%)	IS EN 196 - 2	0.19	0.00 - 0.75
MgO (%)	IS EN 196 - 2	0.4	0.0 - 1.0	Cr(VI) (ppm)	IS EN 196 - 10	0.0	0.0 - 2.0