

Cement Data Sheet

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

Date: 15/03/2024

Portland Cement

I.S EN 197-1:2011	CEM I 42,5 R	18/11/2002
	Certificate of Conformity No: 0050 - CPR - 0012	
CE	CEM I 42,5 R	18/11/2002



Declared Composition (%)

<u>Constituents</u>	<u>Calcium Sulfate</u>
Portland Cement Clinker (K).....	Gypsum.....
95 - 100	3.0 - 6.0
Blastfurnace slag (S).....	Other source of Calcium Sulfate.....
-	-
Silica fume (D).....	
-	
Natural pozzolana (P).....	
-	
Natural calcined pozzolana (Q).....	
-	
Siliceous fly ash (V).....	<u>Additives</u>
-	Grinding Aid.....
Calcareous fly ash (W).....	< 0.1
-	Ferrous Sulphate.....
Burnt Shale (T).....	< 0.3
-	
Limestone (L).....	
0 - 5	

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	29.6	26.5 - 32.5
7 Day	IS EN 196 - 1	47.7	45.0 - 50.0
28 Day	IS EN 196 - 1	59.5	56.0 - 62.5

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	3106	3050 - 3200
Bulk density (T/M ³)	-	-	1.10 - 1.40
Specific surface (M ² /Kg)	IS EN 196 - 6	369	325 - 425
Initial setting time (min)	IS EN 196 - 3	130	90 - 190
Soundness (mm)	IS EN 196 - 3	0.6	0.0 - 4.0

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	3.2	1.5 - 4.0	SO ₃ (%)	IS EN 196 - 2	2.4	2.0 - 3.0
IR (%)	IS EN 196 - 2	0.1	0.1 - 2.0	K ₂ O (%)	IS EN 196 - 2	0.56	0.40 - 0.80
SiO ₂ (%)	IS EN 196 - 2	19.8	17.6 - 21.0	Na ₂ O (%)	IS EN 196 - 2	0.23	0.15 - 0.35
Al ₂ O ₃ (%)	IS EN 196 - 2	5.0	4.6 - 5.6	Cl (%)	IS EN 196 - 2	0.08	0.01 - 0.09
Fe ₂ O ₃ (%)	IS EN 196 - 2	2.8	2.0 - 3.5	FCaO (%)	ISO 29581 - 2	1.3	1.0 - 3.0
CaO (%)	IS EN 196 - 2	66.4	64.0 - 68.0	Na ₂ O _{eqv} (%)	IS EN 196 - 2	0.60	0.45 - 0.75
MgO (%)	IS EN 196 - 2	1.5	1.0 - 2.0	C ₃ A	IS EN 196 - 2	8.7	5.0 - 9.5
Cr(VI) (ppm)	IS EN 196 - 10	0.3	0.0 - 2.0				