



## Cement Data Sheet

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

Date: 20/02/2020

### Portland Cement

I.S EN 197-1:2011	<b>CEM II/A-L 52,5 N (White)</b>	03/01/2005
	Certificate of Conformity No: 0856 - CPR - 0153	
CE	<b>CEM II/A-L 52,5 N (White)</b>	03/01/2005



### Declared Composition (%)

<u>Constituents</u>		<u>Calcium Sulfate</u>
Portland Cement Clinker (K).....	<b>80 - 94</b>	Gypsum..... <b>3.0 - 6.0</b>
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..... < <b>0.1</b>
Burnt Shale (T).....	-	Ferrous Sulphate..... < <b>0.1</b>
Limestone (L).....	<b>6 - 20</b>	

### 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	<b>32.5</b>	<b>28.0 - 34.0</b>
7 Day	IS EN 196 - 1	<b>48.6</b>	<b>46.0 - 52.0</b>
28 Day	IS EN 196 - 1	<b>61.2</b>	<b>57.0 - 65.0</b>

### Physical Properties

<u>Property</u>	<u>Test Method</u>	<u>Mean Values</u>	<u>Range of Values</u>
Specific density (Kg/M <sup>3</sup> )	IS EN 196 - 6	<b>3000</b>	<b>2925 - 3075</b>
Specific surface (M <sup>2</sup> /Kg)	IS EN 196 - 6	<b>539</b>	<b>485 - 585</b>
Initial setting time (min)	IS EN 196 - 3	<b>129</b>	<b>90 - 200</b>
Soundness (mm)	IS EN 196 - 3	<b>0.6</b>	<b>0.0 - 3.0</b>
Whitness L*		<b>91.1</b>	<b>90.0 - 94.0</b>

### 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	<b>9.2</b>	<b>7.0 - 11.0</b>	SO <sub>3</sub> (%)	IS EN 196 - 2	<b>3.3</b>	<b>2.0 - 3.5</b>
IR (%)	IS EN 196 - 2	<b>0.3</b>	<b>0.0 - 3.0</b>	K <sub>2</sub> O (%)	IS EN 196 - 2	<b>0.17</b>	<b>0.10 - 0.90</b>
SiO <sub>2</sub> (%)	IS EN 196 - 2	<b>19.1</b>	<b>18.1 - 21.7</b>	Na <sub>2</sub> O (%)	IS EN 196 - 2	<b>0.07</b>	<b>0.00 - 0.25</b>
Al <sub>2</sub> O <sub>3</sub> (%)	IS EN 196 - 2	<b>2.8</b>	<b>2.0 - 3.0</b>	Cl (%)	IS EN 196 - 2	<b>0.002</b>	<b>0.00 - 0.08</b>
Fe <sub>2</sub> O <sub>3</sub> (%)	IS EN 196 - 2	<b>0.1</b>	<b>0.0 - 1.5</b>	FCaO (%)	ISO 29581 - 2	<b>1.3</b>	<b>0.5 - 3.0</b>
CaO (%)	IS EN 196 - 2	<b>70.1</b>	<b>68.0 - 73.0</b>	Na <sub>2</sub> O <sub>eqv</sub> (%)	IS EN 196 - 2	<b>0.18</b>	<b>0.00 - 0.75</b>
MgO (%)	IS EN 196 - 2	<b>0.4</b>	<b>0.0 - 1.0</b>	Cr(VI) (ppm)	IS EN 196 - 10	<b>0.0</b>	<b>0.0 - 2.0</b>