

## Cement Data Sheet

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

Date: 01/02/2021

### Portland Cement

I.S EN 197-1:2011	<b>CEM I 52,5 R (White)</b>	03/01/2005
	Certificate of Conformity No: 0856 - CPR - 0152	
CE	<b>CEM I 52,5 R (White)</b>	03/01/2005



### Declared Composition (%)

<u>Constituents</u>	<u>Calcium Sulfate</u>
Portland Cement Clinker (K).....	Gypsum.....
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.....
Burnt Shale (T).....	Ferrous Sulphate.....
Limestone (L).....	

**95 - 100**      **3.0 - 5.0**  
 -      -  
 -      -  
 -      -  
 -      **< 0.1**  
 -      **< 0.1**  
 -      -  
**0 - 5**

### Compressive Strengths (MPa)

<u>Time</u>	<u>Test Method</u>	<u>Mean Values</u>	<u>Range of Values</u>
1 Day	IS EN 196 - 1	<b>29.1</b>	<b>27.0 - 34.0</b>
2 Day	IS EN 196 - 1	<b>41.3</b>	<b>37.0 - 45.0</b>
7 Day	IS EN 196 - 1	<b>61.1</b>	<b>55.0 - 65.0</b>
28 Day	IS EN 196 - 1	<b>74.5</b>	<b>66.0 - 76.0</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>3110</b>	<b>3050 - 3200</b>
Specific surface (M <sup>2</sup> /Kg)	IS EN 196 - 6	<b>455</b>	<b>400 - 500</b>
Initial setting time (min)	IS EN 196 - 3	<b>122</b>	<b>90 - 200</b>
Soundness (mm)	IS EN 196 - 3	<b>0.5</b>	<b>0.0 - 3.0</b>
Whitness L*		<b>91.1</b>	<b>89.0 - 93.0</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>3.1</b>	<b>1.0 - 4.0</b>	SO <sub>3</sub> (%)	IS EN 196 - 2	<b>3.1</b>	<b>2.5 - 4.0</b>
IR (%)	IS EN 196 - 2	<b>0.2</b>	<b>0.0 - 1.0</b>	K <sub>2</sub> O (%)	IS EN 196 - 2	<b>0.20</b>	<b>0.10 - 0.90</b>
SiO <sub>2</sub> (%)	IS EN 196 - 2	<b>23.0</b>	<b>21.0 - 25.5</b>	Na <sub>2</sub> O (%)	IS EN 196 - 2	<b>0.05</b>	<b>0.00 - 0.25</b>
Al <sub>2</sub> O <sub>3</sub> (%)	IS EN 196 - 2	<b>3.3</b>	<b>1.5 - 4.0</b>	Cl (%)	IS EN 196 - 2	<b>0.003</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>69.3</b>	<b>66.5 - 71.5</b>	Na <sub>2</sub> O <sub>eqv</sub> (%)	IS EN 196 - 2	<b>0.19</b>	<b>0.10 - 0.75</b>
MgO (%)	IS EN 196 - 2	<b>0.5</b>	<b>0.0 - 1.0</b>	Cr(VI) (ppm)	IS EN 196 - 10	<b>0.0</b>	<b>0.0 - 2.0</b>