

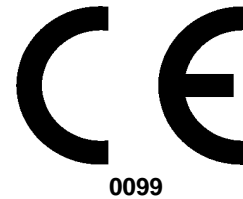
## Cement Data Sheet

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

Date: 21/02/2021

### Portland Cement

I.S EN 197-1:2011	<b>CEM III/A-LL 52,5 N (White)</b>	01/04/2002
	Certificate of Conformity No: 0099 - CPR - 0288	
CE	<b>CEM III/A-LL 52,5 N (White)</b>	01/04/2002



### 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).....	

**80 - 94**      **3.0 - 5.0**  
 -      -  
 -      -  
 -      -  
 -      -  
 -      -  
 -      -  
**6 - 20**      **< 0.1**  
                  **< 0.1**

### 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	21.7	18.0 - 25.0
2 Day	IS EN 196 - 1	33.1	29.0 - 37.0
7 Day	IS EN 196 - 1	46.8	42.0 - 52.0
28 Day	IS EN 196 - 1	57.3	54.0 - 64.0

### 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	3110	3050 - 3200
Specific surface (M <sup>2</sup> /Kg)	IS EN 196 - 6	454	400 - 500
Initial setting time (min)	IS EN 196 - 3	138	90 - 200
Soundness (mm)	IS EN 196 - 3	0.7	0.0 - 3.0
Whitness L*		90.2	89.0 - 93.0

### 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	7.6	6.0 - 9.0	SO <sub>3</sub> (%)	IS EN 196 - 2	3.7	2.5 - 4.0
IR (%)	IS EN 196 - 2	0.2	0.0 - 1.0	K <sub>2</sub> O (%)	IS EN 196 - 2	0.62	0.10 - 0.90
SiO <sub>2</sub> (%)	IS EN 196 - 2	19.0	17.0 - 21.5	Na <sub>2</sub> O (%)	IS EN 196 - 2	0.03	0.00 - 0.25
Al <sub>2</sub> O <sub>3</sub> (%)	IS EN 196 - 2	4.0	2.8 - 5.3	Cl (%)	IS EN 196 - 2	0.004	0.00 - 0.08
Fe <sub>2</sub> O <sub>3</sub> (%)	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	67.5	65.0 - 70.0	Na <sub>2</sub> O <sub>eqv</sub> (%)	IS EN 196 - 2	0.43	0.10 - 0.75
MgO (%)	IS EN 196 - 2	0.5	0.0 - 1.0	Cr(VI) (ppm)	IS EN 196 - 10	0.0	0.0 - 2.0