PREMIUM + Cement Data Sheet

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

Date: 15/03/2024

Portland - limestone Cement

I.S EN 197-1:2011	**CEM II/A-L 42,5 N (1)**	27/11/2009
	Certificate of Conformity No: 0050 - CPR - 0033	
CE	**CEM II/A-L 42,5 N (1)**	27/11/2009

0050

Declared Composition (%)

Constituents	
Portland Cement Clinker (K)	**80 - 94**
Blastfurnace slag (S)	**-**
Silica fume (D)	**-**
Natural pozzolana (P)	**-**
Natural calcined pozzolana (Q)	**-**
Siliceous fly ash (V)	**-**
Calcareous fly ash (W)	**-**
Burnt Shale (T)	**-**
Limestone (L)	**6 - 20**

Calcium Sulfate	
Gypsum	**3.0 - 5.0**
Other source of Calcium Sulfate	**-**

Additives	
Grinding Aid	**< 0.1**
Ferrous Sulphate	**< 0.3**

Compressive Strengths (MPa)

Time	Test Method	Mean Values	Range of Values
2 Day	IS EN 196 - 1	**24.0**	**21.0 - 28.0**
7 Day	IS EN 196 - 1	**38.0**	**34.5 - 42.5**
28 Day	IS EN 196 - 1	**46.5**	**43.5 - 50.0**

Physical Properties

Property	Test Method	Mean Values	Range of Values
Specific density (Kg/M^3)	IS EN 196 - 6	**3060**	**2950 - 3150**
Specific surface (M^2/Kg)	IS EN 196 - 6	**395**	**360 - 430**
Initial setting time (min)	IS EN 196 - 3	**140**	**100 - 200**
Soundness (mm)	IS EN 196 - 3	**0.5**	**0.0 - 4.0**

Chemical Properties

Property	Test Method	Mean	Range
LOI (%)	IS EN 196 - 2	**9.3**	**7.0 - 13.0**
IR (%)	IS EN 196 - 2	**0.2**	**0.1 - 2.0**
SiO_2 (%)	IS EN 196 - 2	**15.7**	**14.5 - 18.5**
Al_2O_3 (%)	IS EN 196 - 2	**4.2**	**3.8 - 4.8**
Fe_2O_3 (%)	IS EN 196 - 2	**2.4**	**1.5 - 3.0**
CaO (%)	IS EN 196 - 2	**67.8**	**66.0 - 71.0**
MgO (%)	IS EN 196 - 2	**1.4**	**1.0 - 1.9**
Cr(VI) (ppm)	IS EN 196 - 10	**0.3**	**0.0 - 2.0**

Property	Test Method	Mean	Range
SO_3 (%)	IS EN 196 - 2	**2.2**	**2.0 - 3.5**
K_2O (%)	IS EN 196 - 2	**0.53**	**0.40 - 0.80**
Na_2O (%)	IS EN 196 - 2	**0.18**	**0.15 - 0.35**
Cl (%)	IS EN 196 - 2	**0.08**	**0.01 - 0.08**
FCaO (%)	ISO 29581 - 2	**1.2**	**1.0 - 3.0**
Na_2O_{eqv} (%)	IS EN 196 - 2	**0.53**	**0.45 - 0.75**
C_3A	IS EN 196 - 2	**7.1**	**5.0 - 8.5**