

**MANUFACTURERS TEST REPORT FOR BS EN197-1:2000 & BS EN197-1:2011 PORTLAND CEMENT
CEMENT IS TESTED IN ACCORDANCE WITH EN196**

Report No.: A2/2238

Lab. No.: 96897

BS EN197-1:2000 and
BS EN197-1:2011 CEM I
Strength Class 52.5N
Requirements

EMERALD BRAND
Typical result of
cement dispatched on
18 September 2022

A. Compressive Strength

Strength at 2 days	Not less than 20.0 MPa	26.0	MPa
Strength at 7 days	-	45.0	MPa
Strength at 28 days	Not less than 52.5 MPa and not more than 72.5 MPa (BS12)	59.2	MPa

B. Fineness - **384** m²/kg

C. Setting times, Initial Not less than 45 minutes **100** mins.
Final Not required **130** mins.

D. Soundness Not more than 10 mm **0** mm

E. Additives Not more than 1.0 % **None**

F. Minor constituents Not more than 5 % **4.2** %

G. Loss on ignition Not more than 5.0 % (BS12) **3.44** %
and not more than 5.0 % (BS EN197)

H. Residue insoluble Not more than 5.0 % **0.57** %

I. Sulfate of cement as SO₃ Not more than 3.5 % (BS12) **2.66** %
and not more than 4.0 % (BS EN197)

J. Chloride content Not more than 0.10 % **<0.01** %


K. Chemical composition of clinker used

Silicon dioxide	-	20.8	%
Iron (III) oxide	-	3.3	%
Aluminium oxide	-	6.2	%
Calcium oxide	-	66.2	%
Magnesium oxide	Not more than 5.0%	1.2	%
Calcium silicates	Not less than 67%	75	%
Ratio, CaO/Silica	Not less than 2.0	3.2	%

L. Alkali content as sodium oxide equivalent Mean: **0.45** %
on last 25 composite sample S.D.: **0.03** %

The cement delivered is processed by Green Island Cement Co. Ltd., Tap Shek Kok Cement Plant and meets all requirements of BS12:1996 and BS EN197-1:2000 CEM I for Portland Cement of strength class 52.5N.

Form 2A(03/19)

Certified by: 
Approved Signatory: Ng Lap Man Franco
Laboratory Superintendent

Issued date: 26 October 2022

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