

## TEST REPORT

**Report No.:** P3h/1006  
**Page:** 1 of 1  
**Date of issued:** 29 Jun 10  
**Client:** Green Island Cement Company Limited - Sales Department  
**Date sample received:** 13 Jun 10  
**Date test commenced:** 15 Jun 10  
**Date test completed:** 24 Jul 10


### Sample Description:

Brand Name: Pulverized Fuel Ash from Green Island Cement Company Limited (Country of Origin: Hong Kong)  
Client's sample identification: PFA dispatch during week ending 12 Jun 10  
Our Lab. No.: 64420

### Test Result:

<u>Test</u>	<u>Test Methods</u>	<u>Result</u>	<u>Requirement of BS 3892 : Part 1 : 1997</u>
Fineness	BS 3892 : Part 1 : 1997 Annex D	6.5 %	not more than 12.0%
Density	BS 3892 : Part 1 : 1997 Clause 7	Trial 1: 2378 kg/m <sup>3</sup> Trial 2: 2382 kg/m <sup>3</sup> Average: 2380 kg/m <sup>3</sup>	not less than 2000 kg/m <sup>3</sup>
Initial Setting Time	BS 3892 : Part 1 : 1997 Clause 10	170 mins	not less than Portland cement
Initial Setting Time *	BS EN 196-3 : 1995 Clause 6	145 mins	
Soundness	BS 3892 : Part 1 : 1997 Clause 11	0.5 mm	not more than 10 mm
Soundness *	BS EN 196-3 : 1995 Cl. 7	0.5 mm	
Strength Factor	BS 3892 : Part 1 : 1997 Annex F	0.79	not less than 0.8 #
Compressive strength at 28 days *	BS EN 196-1 : 1995	59.7 N/mm <sup>2</sup>	
Water Requirement	BS 3892 : Part 1 : 1997 Annex E	96 %	not greater than 95% #
Sulphuric Anhydride as SO <sub>3</sub>	BS EN 196 : Part 2 : 1995 Clause 8	0.53 %	not more than 2.0% (m/m)
Loss on Ignition	BS EN 196 : Part 2 : 1995 Clause 7 (using 1h ignition time)	1.84 %	not more than 7% (m/m)
Moisture Content	BS 3892 : Part 1 : 1997 Annex C	0.1 %	not more than 0.5%
Chloride	BS EN 196 : Part 21 : 1992 Clause 4	<0.01 %	not more than 0.10% (m/m)
Calcium Oxide	BS EN 196 : Part 2 : 1995 Clause 13.14	3.40 %	not more than 10.0% (m/m)
Na <sub>2</sub> O	In-house method LAB-T-065	0.94 %	not required
K <sub>2</sub> O	In-house method LAB-T-065	1.23 %	not required

- Remark: 1. Results relate only to the item tested.  
2. Sampling is performed by laboratory technician and sampling procedure is not accredited by HKAS.  
3. \* means the results are for Portland cement alone with Lab. no. 63636.  
4. Loss on ignition showing in this report is the observed loss on ignition.  
5. # means the requirement for strength factor and water requirement are not required by the "General Specification for Civil Engineering Works" 2006 Edition Volume 2 clause 16.07.

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