

TEST REPORT

Report No.: P3h/2210
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Date of issued: 18 November 2022
Client: Green Island Cement Company Limited - Sales Department
Date sample received: 09 October 2022
Date test commenced: 10 October 2022
Date test completed: 17 November 2022

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 8 October 2022
 Our Lab. No.: 97006

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	8.2 %	not more than 12.0%
Density	BS EN 196-6: 1992 Annex NC	Trial 1: 2449 kg/m ³ Trial 2: 2450 kg/m ³ Average: 2450 kg/m ³	not less than 2000 kg/m ³
Initial Setting Time	BS EN 196-3: 2016 Cl. 6	190 mins	not less than Portland cement
Initial Setting Time *		125 mins	
Soundness	BS EN 196-3: 2016 Cl. 7	0 mm	not more than 10 mm
Soundness *		0 mm	
Strength Factor	BS 3892 : Part 1 : 1997 Annex F	0.92	not less than 0.8 #
Compressive strength at 28 days *		62.0 N/mm ²	
Water Requirement	BS 3892 : Part 1 : 1997 Annex E	98 %	not greater than 95% #
Sulphuric Anhydride as SO ₃	BS 3892: Part 1: 1997 Cl. 12.1 & BS EN 196 : Part 2 : 1995 Clause 8	0.82 %	not more than 2.0% (m/m)
Loss on Ignition	BS 3892: Part 1: 1997 Cl. 12.2 & BS EN 196 : Part 2 : 1995 Clause 7 (using 1h ignition time)	2.11 %	not more than 7% (m/m)
Moisture Content	BS 3892: Part 1: 1997 Cl. 5 & BS 3892 : Part 1 : 1997 Annex C	0.2 %	not more than 0.5%
Chloride	BS 3892: Part 1: 1997 Cl. 12.3 & BS EN 196 : Part 21 : 1992 Clause 4	0.01 %	not more than 0.10% (m/m)
Calcium Oxide	BS 3892: Part 1: 1997 Cl. 12.4 & BS EN 196 : Part 2 : 1995 Clause 13.14 (alternative method)	7.25 %	not more than 10.0% (m/m)
Na ₂ O	In-house method LAB-T-065	1.57 %	not required
K ₂ O	In-house method LAB-T-065	1.27 %	not required


Remark:

- Results relate only to the item tested.
- Sampling is performed by laboratory technician and sampling procedure is not accredited by HKAS.
- * means the results are for Portland cement alone with Lab. no. 95425. The Portland cement which was used for the testing BS EN 196-1 and BS EN 196-3 is manufactured by Green Island Cement Co. Ltd. located at Tap Shek Kok, Tuen Mun, N.T.
- Loss on ignition showing in this report is the observed loss on ignition.

Interpretation:

- # means the requirement for strength factor and water requirement are not required by the CEDD "General Specification for Civil Engineering Works" 2006 Edition Volume 2 clause 16.07 and Hong Kong Housing Authority Specification Library (SL) 2014 Edition clause CON1.M150.7.

Form P3h (06/13)

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

-- End of Report --