

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)



DEPARTMENT OF CIVIL ENGINEERING

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http://brtc.ce.buet.ac.bd/#/home

CONCRETE LABORATORY



BRTC No. : **1102-30546/20-21/CE; Dt. 28/2/2021**
 Sent by : Muhammad Sakib Mahmud Ansary, Executive Engineer E/M,
 GE (Biman), Tejgaon
 Ref. No. : ৩০০২/ইইনসি/০৪/ই-৩; Dt. 20/10/2020
 Project : Test of cement manufactured by Sena Kalyan Sangstha for construction of GE (Air)
 Tejgaon
 Sample : **Cement** [Brand: ELEPHANT; ID: -] Type: CEM I 52.5 N
 Date of Casting : 15/3/2021 Our ID : M-123 Manufacturing Date: Not mentioned
 Test Method & Specification : ASTM

Test Results of Portland Cement (Type-I)

Compressive Strength, psi & (Mpa); ASTM 109-11b	Age	3 days	7 days	28 days
	Date	18-Mar-21	22-Mar-21	12-Apr-21
	In figure	2210 psi (15.2 Mpa)	3280 psi (22.6 Mpa)	5080 psi (35 Mpa)
	In words	Two thousand two hundred ten psi	Three thousand two hundred eighty psi	Five thousand eighty psi
Standard/Optional* Requirements for PC Type I : ASTM C150-19a		1740 psi (12 Mpa)	2760 psi (19 Mpa)	4060 psi (28 Mpa)
Mixing water temperature		22.5 °C	Curing water temperature	20.5 - 25°C

Water for Normal Consistency: ASTM C187-11		Initial Setting Time (minutes): ASTM C191-08		Final Setting Time (minutes): ASTM C191-08	
Standard Requirements: ASTM C150-19a	Test Result	Standard Requirements: ASTM C150-19a	Test Result	Standard Requirements: ASTM C150-19a	Test Result
****	22.5%	Not less than 45 minutes	169	Not more than 375 minutes	402

Fineness (Specific Surface), m ² /kg; ASTM C204-11 (Air Permeability Method)		Density/ Specific Gravity (gm/cc): ASTM C188-09		Weight of Cement Bag (kg)	
Standard Requirements: ASTM C150-19a	Test result	Standard Requirements	Test Result	Standard Requirements	Test Result
Minimum 260 m ² /kg	387	****	****	****	****

Note: Sample was received in sealed condition.

Countersigned by:

Dr. A. B. M. Badruzzaman
 Professor, Dept. of Civil Engg., BUET



Test performed by:

12-04-2021

Dr. Sheikh Mokhlesur Rahman
 Assistant Professor, Dept. of Civil Engg., BUET



Important Notes: Samples as supplied to us have been tested in the laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secured and sealed cover/packet/container duly signed by a competent authority. In order to avoid fraudulent fabrication of test results, it is also recommended that all the test reports are collected by an authorized person, and not by the Contractor/Supplier.

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