

# 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. : **1102-50899/21-22/CE; Dt. 5/1/2022** Sheet 1 of 1  
 Sent by : Abu Ahmed Zahid, DGM, Quality Assurance and Lab, M.I. Cement Factory  
 West Mukterpur Munshiganj  
 Ref. No. : Letter; Dt. 5/1/2022  
 Project : --  
 Sample : **Cement** [Brand: CROWN; ID: PC Week-01, January 22] Type: CEM I 52.5 N  
 Date of Casting : 10/1/2022 Our ID : TA-41 Manufacturing Date: --/Jan/2022  
 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	13-Jan-22	17-Jan-22	7-Feb-22
	In figure	<b>3280 psi</b> (22.6 Mpa)	<b>4760 psi</b> (32.8 Mpa)	<b>6400 psi</b> (44.1 Mpa)
	In words	Three thousand two hundred eighty psi	Four thousand seven hundred sixty psi	Six thousand four hundred 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	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
****	<b>26%</b>	Not less than 45 minutes	<b>162</b>	Not more than 375 minutes	<b>292</b>

Fineness (Specific Surface), m <sup>2</sup> /kg :		Soundness (Mortar Bar Expansion, %): ASTM 1038-11		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	Standard Requirements	Test Result
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Note: Sample was received in unsealed condition.

Countersigned by:

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



Test performed by:

**Dr. Tanvir Ahmed**  
 Professor, Dept. of Civil Engg., BUET

**Important Notes:** Samples as supplied to us have been tested in our 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.