



BRTC No. : 1102-91414 /CE /22-23 ; Dt: 17/5/2023

Sent by : Engineer Md Obaidullah , General Manager, (UGO&M), MGMCL, Maddhapara, Dinajpur

Ref. No. : 28.17.0000.311.48.001.23/687; Dt: 16/5/2023

Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : Crushed Stone (Stone Chips)

MGMCL

Test : Specific Gravity and Water Absorption (ASTM C127)

Date of Test : 12/6/2023

TEST REPORT

Sample Designation	Weight of oven dry sample	Weight of SSD sample	Weight of saturated sample in water	Bulk Specific Gravity (OD)	Absorption Capacity
	(gm)	(gm)	(gm)	(Relative Density)	(%)
Crushed Stone (Stone Chips)	3102.7	3114.1	1999.9	2.78	0.40

Notes: Samples were not properly sealed.

Countersigned by:

Dr. Hasib Mohammed Ahsan  
Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



Test Performed by:

Dr. Md. Mizanur Rahman  
Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



**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 secure and sealed cover/packet/container under signature of the competent authority. In order to avoid fraudulent fabrication of test results, it is recommended that all test reports are collected by duly authorized person, and not by the Contractor/Supplier.



**BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)**



**DEPARTMENT OF CIVIL ENGINEERING**  
Mobile: 01819557964; PABX: 55167228-57 Ext. 7226  
<http://btrc.ce.buet.ac.bd/#/home>  
**TRANSPORTATION ENGINEERING LABORATORY**



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Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : **Crushed Stone (Stone Chips)**

**MGMCL**

Test : **Ten Percent Fines Value [BS 812-111:1990]**

Date of Test : 12/6/2023

**TEST REPORT**

Type of Aggregate	Sample Size	Weight of sample (Surface Dry)	Applied Load	Weight of material passing 3.35 mm sieve	Ten Percent Fines Value
		(gm)	(KN)	(gm)	
Crushed Stone (Stone Chips)	20 mm to 14 mm	2831	180	327	160 KN

Notes: Samples were not properly sealed.

Countersigned by:

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Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



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Ref. No. : 28.17.0000.311.48.001.23/687; Dt: 16/5/2023  
Project : Different Tests of MGMCL Stone and Imported Stones.  
Sample : Crushed Stone (Stone Chips) MGMCL  
Test : Aggregate Impact Value [BS 812 (part 3) 1975]  
Date of Test : 12/6/2023

## TEST REPORT

Type of Aggregate	Sample Size	Weight of sample (Surface Dry)	Weight of material passing 2.36 mm sieve	Aggregate Impact Value
		(gm)	(gm)	%
Crushed Stone (Stone Chips)	14 mm to 10 mm	348	99	28

Notes: Samples were not properly sealed.

Countersigned by:

Dr. Hasib Mohammed Ahsan  
Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



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Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : Crushed Stone (Stone Chips) MGMCL

Test : Aggregate Crushing Value [BS 812 (part 3) 1975]

Date of Test : 12/6/2023

## TEST REPORT

Type of Aggregate	Sample Size	Weight of sample (Surface Dry)	Weight of material passing 3.35 mm sieve	Aggregate Crushing Value
		(gm)	(gm)	%
Crushed Stone (Stone Chips)	20 mm to 14 mm	2831	612	22

Notes: Samples were not properly sealed.

Countersigned by:

Dr. Hasib Mohammed Ahsan  
Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



Test Performed by:

  
14/6/23

Dr. Md. Mizanur Rahman  
Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



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Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : Crushed Stone (Stone Chips) **MGMCL**

Test : Unit Weight/Bulk Density & Voids in Aggregate [ASTM C 29]

Date of Test : 12/6/2023

**TEST REPORT**

Unit weight/Bulk Density (kg/m <sup>3</sup> ) =	1560 kg/ m <sup>3</sup>
Voids in Aggregate, compacted by Rodding(%) =	

Notes: Samples were not properly sealed.

Countersigned by:

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Professor  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



Test Performed by:

**Dr. Md. Mizanur Rahman**  
Professor  
Department of Civil Engineering  
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## DEPARTMENT OF CIVIL ENGINEERING

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<http://brtctest.ce.buet.ac.bd>

## CONCRETE LABORATORY



BRTC No. : 1102-91414 /22-23/CE; Dt: 17/5/2023

Sent by : Engineer Md Obaidullah , General Manager, (UGO&M), MGMCL, Maddhapara, Dinajpur

Ref. No. : 28.17.0000.311.48.001.23/687; Dt: 16/5/2023

Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : **Concrete Cylinder** [Aggregate Type: Stone chips (MGMCL)]

Cement : AKIJ (OPC) w/c = 0.45 [Mix proportion(as quoted): 1:2:4]

[Admixture Added (as per letter): Not mentioned]

Test : **Compressive Strength Test of Concrete Cylinder [ASTM C39]**

Date of Test : 15/6/2023

### TEST REPORT

SL No.	Date of Casting as per the letter	Specimen Designation/ Frog Mark	Specimen Area	Maximum Load	Crushing Strength	Average Crushing Strength	Mode of Failure
			(sq. in)	(lb)	(psi)		
1	8/6/2023 (7 days test)	MGMCL	12.67	41,843	3,303	<b>3410 psi</b> (23.5 MPa) (240 kg/cm <sup>2</sup> )	Combined *
2		MGMCL	12.67	44,572	3,518		Combined *
3		MGMCL	12.55	42,753	3,407		Combined *

\* Combined = Mortar and Aggregate Failure.

Note: Samples were received in unsealed condition.

Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan

Test-In-Charge

Department of Civil Engineering

BUET, Dhaka-1000, Bangladesh



CRKA mE9XB

Test Performed by:

Dr. Md. Mizanur Rahman

Professor

Department of Civil Engineering

BUET, Dhaka-1000, Bangladesh



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Project : Different Tests of MGMCL Stone and Imported Stones.

Sample : Concrete Cylinder [Aggregate Type: Stone chips (MGMCL)]

Cement : AKIJ (OPC) w/c = 0.45 [Mix proportion(as quoted): 1:2:4]

[Admixture Added (as per letter): Not mentioned]

Test : Compressive Strength Test of Concrete Cylinder [ASTM C39]

Date of Test : 6/7/2023

### TEST REPORT

SL No.	Date of Casting as per the letter	Specimen Designation/ Frog Mark	Specimen Area (sq. in)	Maximum Load (lb)	Crushing Strength (psi)	Average Crushing Strength	Mode of Failure
1	8/6/2023	MGMCL	12.67	54,580	4,308	4490 psi	Combined *
2	(28 days test)	MGMCL	12.67	56,400	4,451	(31 MPa)	Combined *
3		MGMCL	12.55	59,129	4,711	(316 kg/cm <sup>2</sup> )	Combined *

\* Combined = Mortar and Aggregate Failure.

Note: Samples were received in unsealed condition.

Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan  
Test-In-Charge  
Department of Civil Engineering  
BUET, Dhaka-1000, Bangladesh



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