

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)



DEPARTMENT OF CIVIL ENGINEERING
Mobile: 01819 557 964; PABX: 966 5650-80 Ext. 7226. www.buet.ac.bd/ce/



CONCRETE LABORATORY

BRTC No. : 1100-83805 /14-15/CE; Dt: 13/4/2015
Sent by : Engr. Mohammad Abul Bashar, Managing Director, Maddhapara Granite Mining Company Limited.
Ref. No. : Rock-100.124.18/726; Dt: 18/5/2015
Project : Concrete Cylinder Casting & Testing for a Set of 6 Nos.
Mixture : Water/cement: 0.27; Cement: 544kg (Super Fresh-OPC); Water: 147kg; Coarse Sand: 641kg (FM=2.65);
Maddhapara Hard Rock (CA): 1133kg (5-10mm: 340kg; 10-20mm: 793kg); Superplasticizer (MEHS 247): 5.4kg.
Test : Compressive Strength [ASTM C39]
Date of Test : 30/6/2015

TEST REPORT

Sl. No.	Date of Casting	Specimen Designation/ Frog Mark	Specimen Area (sq. in)	Maximum Load (lb)	Crushing Strength (psi)	Average Crushing Strength	Mode of Failure
1	2/6/2015	H1	12.42	137,692	11,086	10250 psi (70.5 MPa) (721 kg/cm ²)	Combined *
2	(28 days test)	H1	12.42	116,185	9,355		Combined *
3		H1	12.42	128,184	10,321		Combined *

* Combined = Mortar and Aggregate failure.

Countersigned by:

Dr. Abu Siddique
Professor
Department of Civil Engineering
BUET, Dhaka-1000, Bangladesh



Test Performed by:

Dr. Hasib Mohammed Ahsan
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.

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Mixture : Water/cement: 0.27; Cement: 544kg (Super Fresh-OPC); Water: 147kg; Stone Dust: 641kg (FM=2.44);
Maddhapara Hard Rock (CA): 1133kg (5~10mm: 340kg; 10~20mm: 793kg); Superplasticizer (MEHS 247): 5.4kg.
Test : **Compressive Strength [ASTM C39]**
Date of Test : 30/6/2015

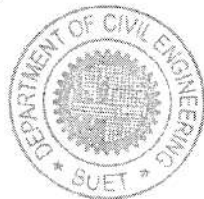
TEST REPORT

Sl. No.	Date of Casting	Specimen Designation/ Frog Mark	Specimen Area (sq. in)	Maximum Load (lb)	Crushing Strength (psi)	Average Crushing Strength	Mode of Failure
1	2/6/2015	H2	12.42	115,506	9,300	8970 psi (62 MPa) (631 kg/cm ²)	Combined *
2	(28 days test)	H2	12.42	109,393	8,808		Combined *
3		H2	12.42	109,167	8,790		Combined *

* Combined = Mortar and Aggregate failure.

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 Test : **Compressive Strength [ASTM C39]**
 Date of Test : 9/6/2015

TEST REPORT

Sl. No.	Date of Casting	Specimen Designation/ Frog Mark	Specimen Area (sq. in)	Maximum Load (lb)	Crushing Strength (psi)	Average Crushing Strength	Mode of Failure
1	2/6/2015	H1	12.42	102,827	8,279	8630 psi (59.5 MPa) (607 kg/cm ²)	Combined *
2	(7 days test)	H1	12.42	113,242	9,118		Combined *
3		H1	12.42	105,544	8,498		Combined *

* Combined = Mortar and Aggregate failure.

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Test : Compressive Strength [ASTM C39]
Date of Test : 9/6/2015

TEST REPORT

Sl. No.	Date of Casting	Specimen Designation/ Frog Mark	Specimen Area	Maximum Load	Crushing Strength	Average Crushing Strength	Mode of Failure
			(sq. in)	(lb)	(psi)		
1	2/6/2015	H1	12.42	117,543	9,464	9600 psi (66 MPa) (675 kg/cm ²)	Combined *
2	(7 days test)	H1	12.42	128,636	10,357		Combined *
3		H1	12.42	111,657	8,990		Combined *

* Combined = Mortar and Aggregate failure.

Countersigned by:

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



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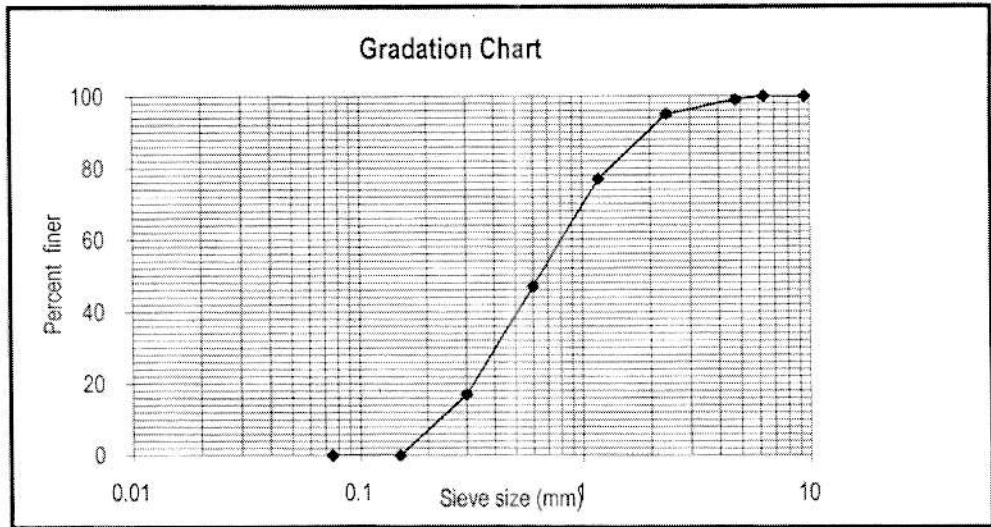
Sieve Analysis and Grain Size Distribution of Sand

BRTC No: 110083805/14-15/CE
Reference: Rock-100.124.18/726
Sample sent by: Engr. Mohammad Abul Bashar,
Managing Director, Maddhapara Granite Mining Company Limited.
Sample Type: Coarse Sand (used for preparing Concrete Cylinders)
Date of Test: 13.06.2015

Date: 13.04.2015
Date: 18.05.2015

TEST RESULTS

Sieve Size	Material Retained	Percent of Material Retained	Cumulative % Retained	Percent Finer	Fineness Modulus
mm	gm	%	%	%	
9.5	0.00	0	0	100	2.65 (two point six five)
6.3	0.00	0	0	100	
4.75	3.17	1	1	99	
2.36	19.67	4	5	95	
1.18	90.91	18	23	77	
0.6	150.36	30	53	47	
0.3	148.93	30	83	17	
0.15	83.05	17	100	0	
0.075	2.67	1	100	0	
Pan	1.24	0.2			
Total	500.00				



Countersigned by

Asadique

Dr. Abu Siddique
Professor
Department of Civil Engineering
BUET, Dhaka-1000.



Test performed by

Hasib Mohammed AhSan

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



TRANSPORTATION ENGINEERING LABORATORY

Sieve Analysis and Grain Size Distribution of Sand

BRTC No: 110083805/14-15/CE

Date: 13.04.2015

Reference: Rock-100.124.18/726

Date: 18.05.2015

Sample sent by: Engr. Mohammad Abul Bashar,

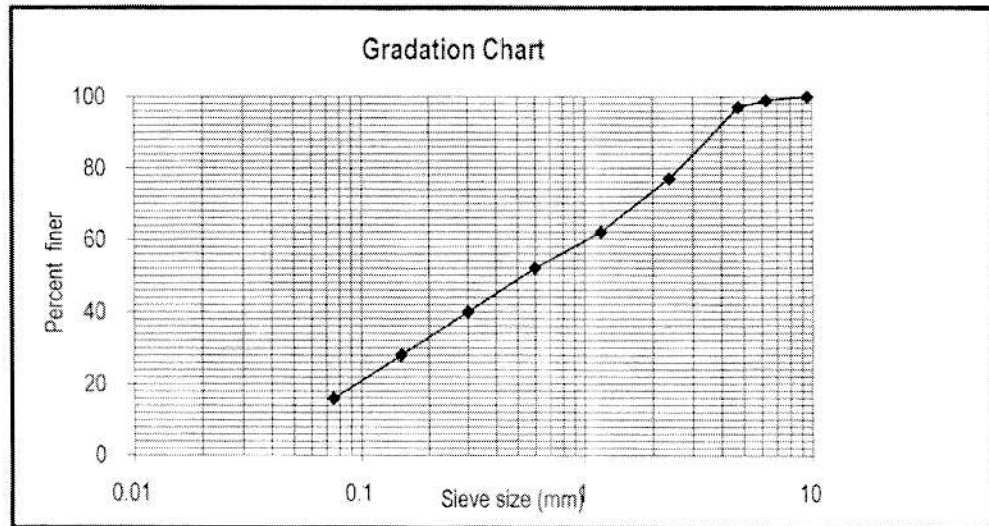
Managing Director, Maddhapara Granite Mining Company Limited.

Sample Type: Stone Dust (used for preparing Concrete Cylinders)

Date of Test: 13.06.2015

TEST RESULTS

Sieve Size	Material Retained	Percent of Material Retained	Cumulative % Retained	Percent Finer	Fineness Modulus
mm	gm	%	%	%	
9.5	0.00	0	0	100	2.44 (two point four four)
6.3	3.60	1	1	99	
4.75	9.87	2	3	97	
2.36	99.37	20	23	77	
1.18	74.60	15	38	62	
0.6	51.95	10	48	52	
0.3	59.67	12	60	40	
0.15	62.30	12	72	28	
0.075	60.89	12	84	16	
Pan	77.75	16.0			
Total	500.00				



Countersigned by

Dr. Abu Siddique
Professor
Department of Civil Engineering
BUET, Dhaka-1000.



Test performed by

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