

LOCAL GOVERNMENT ENGINEERING DEPARTMENT

LABORATORY AT: Kurigram

GRAIN SIZE ANALYSIS (Mechanical) OF COARSE AGGREGATE.

Client :Project Manager MJCL -Standard JV	Ref: - 345	Date:-31.08.2025
Scheme :-Con.of Pimary school cum flood Shelter with connecting Road Bridge/culvert Under RIVER Project		
Name of Con: MJCL -Standard JV Gulshan-2,Dhaka	Type of Specimen : Stone Chips (Modhopara Black)	
Sample By:- DPM MJCL -Standard JV	Date of test : -03.09.2025	
Laboratory Register No :	Quantity Represented :- N/A (Not mentioned)	

Wt. of Dry Sample + Container (A) =		kg
Wt of Container (B)	=	kg
Wt of Dry Sample (A -B)	=	18.284 kg

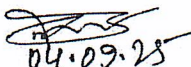
SIEVE ANALYSIS DATA :

Sieve	Standard Opening, mm	Cumulative Weight Retained, Kg	Cumulative% Retained.	% Passing.	Specification
1"	25.0	0.062	0.3	100	100
3/4"	19.5	1.721	9.4	91	90 - 100
3/8"	9.5	10.665	58.3	42	20 - 55
# 4	4.75	16.830	92.0	8	0 - 15
# 8	2.36	17.669	96.6	3	0 - 5
Pan		18.284	100.0		

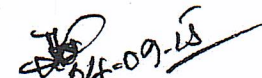
Test Repoting by : SAE LAB

Supervised by : AE

Comments of the Laboratory In charge : The Sample Were Tested Only Supplied Materials.


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LOCAL GOVERNMENT ENGINEERING DEPARTMENT

LABORATORY AT: Kurigram

RESISTANCE TO ABRASION OF COARSE AGGREGATE BY THE USE OF LOS ANGELES ABRASION TEST (ASTM C-131)


Client :Project Manager MJCL -Standard JV		Ref: - 345 Date:-31.08.2025
Scheme :-Con.of Pimary school cum flood Shelter with connecting Road Bridge/culvert Under RIVER Project		
Name of Con: MJCL -Standard JV Gulshan-2,Dhaka		Date of test : -03.09.2025
Sample By:- DPM MJCL -Standard JV	Type of Specimen : Stone Chips (Modhopara Black)	
Laboratory Register No :	Quantity Represented :-	

Sieve		Grading	Wt.of the materials. (W1) gm	Wt. Retained on # 12 (1.70 mm) Sieve.(W2) gm	Other Information	Abrasion Value, % (W1-W2)/W1*100
Passing mm	Retained mm					
37.5	25.0	A				27.54 $\cong 27.5 \%$
25.0	19.0				Grading = B	
19.0	12.5	B	2500		No.of Spheres =11	
12.5	9.5		2500		Wt.of Spheres = 4586gm	
9.5	6.3	C			Revolution = 500 No.	
6.3	4.75					
4.75	2.36	D				
Total wt. =			5000	3623		

Test Repoting by : SAE LAB

Supervised by : AE

Comments of the Laboratory In charge : The Sample Were Tested Only Supplied Materials.


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GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
OFFICE OF THE EXECUTIVE ENGINEER
DISTRICT : KURIGRAM

UNIT WIGHT OF AGGREGATE

Ref. No. & Date : 345 Date: 31.08.2025
 Client : Project Engineer, MJCL-STANDARD JV
 Name of scheme : Con. of Primary school cum flood Shelter Under RIVER Project
 Quantity Received : 40 kg (Approximate) Quantity represented : Not-informed
 Location : Stone chips from Modhopara (Black) Sample No. : 2
 Materials description : 20mm Down Graded Date of received : 31.08.2025
 Name of Contactor : MJCL -STANDARD JV Dhaka Sample By : DPM MJCL -STANDARD JV
 State of Aggregate : Not mentioned Date of test : 01.09.2025
 Method of Compaction : **RODDING/JIGGING/SHOVEL** Water Absorption (SSD Unit Wt.) :
 Lab. Registration No. :

Mould Calibration :

Wt. Of Water to fill the selected Size of Mold : Kg. Water Temperature : 31.0C

Water density : 995.4 kg/m³ Actual Volume of Mould : 0.0093 m³

Test No.	Wt. of Aggregate + Mould Kg	Wt. of Mould Kg	Wt. of Aggregate in Mould Kg	Unit Wt. of Aggregate, Kg/m ³	Result & Remarks Kg/m ³
1	22.352	7.844	14.51	1560.0	
2	22.364	7.844	14.52	1561.3	1558
3	22.295	7.844	14.45	1553.9	

NOTE :- - 1 lb/ft³ = 16.018 kg/m³

NOTE :- **1 MN** - S.S.D Unit Wt. = Oven dry Unit Wt. (1 + Water Absorption / 100)


- As per ASTM, average of three test 9 as shown above) is not required.

- mould size required as per ASTM :

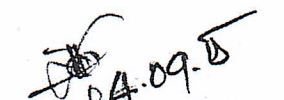
Max. Size of Aggregate, mm (inch)	12.5 (1/2)	25 (1)	37.5 (1.5)	75 (3)
Capacity of Mould required, litre (ft ³)	2.8 (1/10)	9.3 (1/3)	14 (1/2)	28 (1)

Tested by : SAE LAB & AE

Comments :


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SPECIFIC GRAVITY & ABSORPTION TEST OF COARSE AGGREGATE (ASTM C-127)

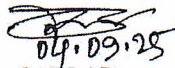
Ref. No. & Date : 345 Date : 31.08.2025
Client : Project Manager, MJCL -Standard JV
Name of scheme : Con. of Pimary school cum flood Shelter with connecting Road Bridge/culvert Under RIVER
Project Dis: Kurigram
Quantity Collected from Field : About 80kg. Quantity Represented : Not informed
Location : Sampled By : DPM, MJCL -Standard JV Date: 31.08.2025
Sample No : Type of Specimen : Stone chips (Modhopara) Test Date : 04.09.2025
Approximate Capacity of Wire Basket : 6.1 Litre. Nominal Max. Aggregate Size : 20 mm. Sieve for separating Finer : 4.75mm
Finer Particles (If excess amount) : Total Specimen tested (since negligible) / (#4) Sieve
% Coarser Portion (retained on (# 4) sieve, P₁ : % of Finer Portion, P₂ :
Name of Contractor : MJCL -Standard JV Gulsan-2, Dhaka

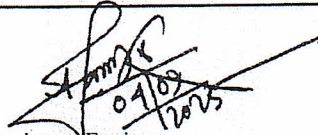
Description	Test No.-1	Test No.-2	Remarks
Weight of SSD Specimen in Air (B), gm	7244.0		
Weight of Saturated Specimen in Water (C), gm	4562.00		
Weight of Oven-Dried Specimen (A), gm	7211.0		
Temperature of Water (T); if other then 23 ± 1.7°C	29.0		
Specific Gravity of Water at Temperature T°C (G _T)	0.9960		
Bulk Specific Gravity, 23/23°C, = A / (B-C) X G _T /G ₂₃	2.68		
Bulk Specific Gravity (SSD), 23/23°C, = B / (B-C) X G _T /G ₂₃	2.69		
Apparent Specific Gravity, 23/23°C, = A / (A-C) X G _T /G ₂₃	2.71		
Water Absorption, = (B - A) X 100, %	0.46		
Average Specific Gravity, 23/23°C,	---		
Average Water Absorption, %	0.5 %		

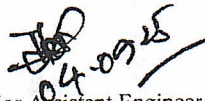
NOTE: -- Specific Gravity of Water at 23°C (G₂₃) = 0.9976
-- As per ASTM average of three tests is not necessary, though provision is kept in the data sheet.
-- Unit Wt. = Sp. Gr. X 1000 (Kg/m³) or Sp. Gr. X 62.4 (lb/cft)

Tested by : SAE LAB&AE

Comments :


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Assistant Engineer
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