



# MILITARY ENGINEER SERVICES (MES)

M E S  
Material Testing  
Laboratory

## MATERIAL TESTING LABORATORY

Mobile: 01769-012888, <http://mes.org.bd>

### TEST RESULT FOR FINENESS MODULUS (F.M.) OF SAND

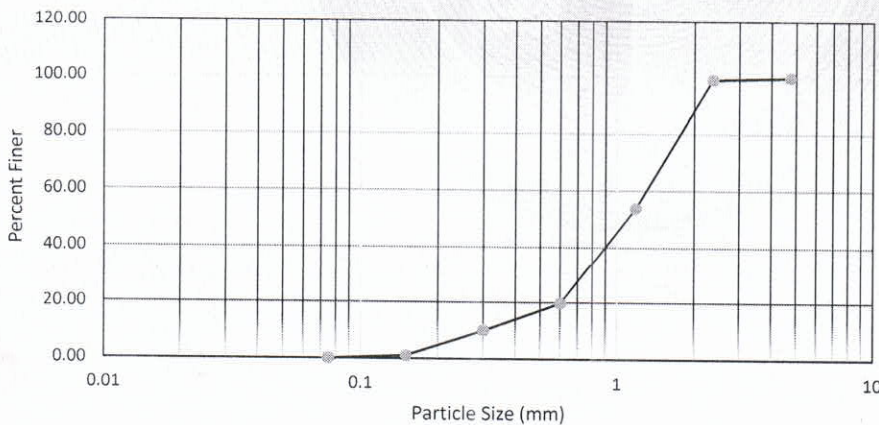
#### Sieve Analysis and Grain Size Distribution of Sand (ASTM C136)

Job No : 104/2025-2026 (Sand).  
 Reference: : CEN/250 of 2025-2026/13/E-6 Dt.21 Jun'2026.  
 Sample send by : GE (Navy) South Chattogram.  
 Project : Construction of Multipurpose Building.  
 Sample : Sylhet Sand  
 Date of Sample collection : 22 Jun'2026  
 Date of Test : 23 Jun'2026

#### TEST RESULTS

| Sieve Size | Material Retained | Percentage of Material Retained | Cumulative % Retained | Percent Finer | Fineness Modulus |
|------------|-------------------|---------------------------------|-----------------------|---------------|------------------|
| mm         | gm                | %                               | %                     | %             |                  |
| 4.750      | 0.51              | 0.13                            | 0.13                  | 99.87         | FM = 3.26        |
| 2.360      | 2.97              | 0.74                            | 0.87                  | 99.13         |                  |
| 1.180      | 181.23            | 45.31                           | 46.18                 | 53.82         |                  |
| 0.600      | 136.22            | 34.06                           | 80.23                 | 19.77         |                  |
| 0.300      | 74.09             | 18.52                           | 98.76                 | 10.00         |                  |
| 0.150      | 3.25              | 0.81                            | 99.57                 | 1.00          |                  |
| 0.075      | 1.66              | 0.42                            | ..                    | 0.00          |                  |
| #Pan       | 0                 | 0.00                            | ...                   | 0.00          |                  |
| Total      | 399.93            | 99.98                           | Σ= 325.73             |               |                  |

Gradation Chart



Report Prepared by :

MD IKBAL HOSEN

SAE B/R

AHQ E in C's Br

Wks Dte, Dhaka Cantt.

Test Performed by :

AHASAN HABIB

AE B/R

Actg SO-III (Lab)

AHQ E in C's Br

Wks Dte, Dhaka Cantt.

Countersigned by :

MD ATIKUR RAHMAN

MAJOR

OIC (Lab)

AHQ E in C's Br

Wks Dte, Dhaka Cantt.

Permissible Value:

1. For Sylhet/Domar sand minimum FM will be = 2.50
2. For Local sand minimum FM will be = 1.5
3. For Vitty sand minimum FM will be = 0.80





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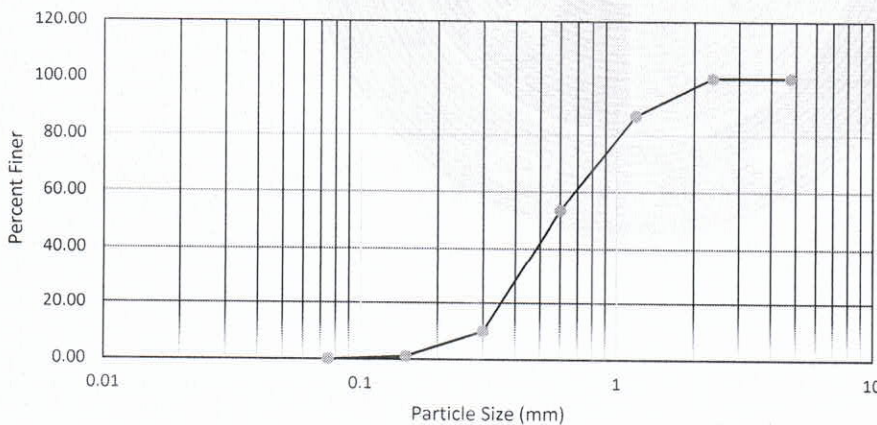
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|------------|-------------------|---------------------------------|-----------------------|---------------|------------------|
| mm         | gm                | %                               | %                     | %             |                  |
| 4.750      | 0                 | 0.00                            | 0.00                  | 100.00        | FM = 2.38        |
| 2.360      | 0                 | 0.00                            | 0.00                  | 100.00        |                  |
| 1.180      | 52.62             | 13.16                           | 13.16                 | 86.85         |                  |
| 0.600      | 133.23            | 33.31                           | 46.46                 | 53.54         |                  |
| 0.300      | 140.82            | 35.21                           | 81.67                 | 10.00         |                  |
| 0.150      | 62.14             | 15.54                           | 97.20                 | 1.00          |                  |
| 0.075      | 8.37              | 2.09                            | ..                    | 0.00          |                  |
| #Pan       | 2.22              | 0.56                            | ...                   | 0.00          |                  |
| Total      | 399.4             | 99.85                           | Σ= 238.49             |               |                  |

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