



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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TEST RESULT FOR TENSILE STRENGTH OF PLAIN/DEFORMED/RIBBED COLD TWISTED M.S BARS

Job No : 96/2023-2024 (Steel).

Copy No : 03

Name of Client : GE (Army) Cumilla.

Sample Specimen : Length 600mm , Dia 16mm

Ref.Itr.No : EinC/367 of 2022-2023/07/E-6 Dt.22 Oct'2023.

Sample Grade : 60

Project Name : Construction of 1 X Food Godown.

Frog Mark : SAS B-420 DWR

Dt. of Sample Collection: 23 Oct'2023

| Sample No | Nominal Dia | Actual Dia | Area Under Test | Actual Unit Weight | Average Actual Unit Weight | Yield or Proof load | Yield or Proof Strength | Average Yield or Proof load | Ultimate load | Ultimate Strength | Average Ultimate Strength | Ratio (Fult/Fy) | Elongation% (gauge length) | | Average Elongation% (gauge length) | |
|-----------|----------------|----------------|------------------|--------------------|----------------------------|---------------------|-------------------------|-----------------------------|--------------------|-------------------|---------------------------|-----------------|----------------------------|----|------------------------------------|----|
| | inch mm | inch mm | sq.inch sq.mm | lb/ft kg/m | lb/ft kg/m | lb kn | psi Mpa | psi Mpa | lb kn | psi Mpa | psi Mpa | | 8inch | 5d | 8inch | 5d |
| 1 | 0.630 16.00 | 0.622 15.79 | 0.312 201.062 | 1.033 1.537 | 1.033 1.537 | 28348.58 126.10 | 90964 627 | 89487 617 | 36095.81 160.56 | 115823 799 | 114821 792 | 1.27 | 15.5 | 15 | | |
| 2 | 0.630 16.00 | 0.622 15.79 | 0.312 201.062 | 1.033 1.537 | | 28304.63 125.90 | 90823 626 | | 36560.78 162.63 | 117315 809 | | 1.29 | 14 | | | |
| 3 | 0.630 16.00 | 0.622 15.79 | 0.312 201.062 | 1.033 1.537 | | 27011.50 120.15 | 86673 598 | | 34693.95 154.33 | 111325 768 | | 1.28 | 15 | | | |

Cautions:

1. Samples as supplied to the laboratory have been tested.The laboratory authority does not bear any responsibility as to the representative charecture of the samples to be tested.
2. It is recommended that samples are Sent in asecuried and sealed cover/packet/container under signature of the competent authority.
3. In order to avoid fraudulent of the test results,it is recommended that all test reports should be collected by duly authorised person and not by contractor/supplier.

Ovservation on Specimen(if any):

1. Diameter & Unit weight of 16 mm bar is less than the standard value but within tolerance limit according to MES Schedule of Rates-2016.

| Minimum Standard Requirements (BDS/ISO 6935-2:1991(E)) | | | | Minimum Standard Requirments(ASTM A615/A616M-96a) | | | | | | | | | |
|--|--------------|--------------|------------|---|--------------|--------------|--------------|--------------|--------------|---|-------------|----------|-------------|
| | | | | ASTM A 615 M | | | ASTM A 615 M | | | ASTM A 615/A 615 M | | | |
| Grade | Y/strength | Ult.Str | Elongation | Grade | Y/strength | Ult.Str | Grade | Y/strength | Ult.Str | Minimum Elongation in 8"(203.2 mm) GL (%) | | | |
| | N/mm2 or Mpa | N/mm2 or Mpa | | | psi (kg/cm2) | psi (kg/cm2) | | Mpa (kg/cm2) | Mpa (kg/cm2) | 10 mm | 13,16,19 mm | 22,25 mm | 29,32,36 mm |
| 300 | 300 | 330 | 16 | 40 | 40000(2810) | 70000(4910) | 300 | 300(3050) | 500(5090) | 11 | 12 | .. | .. |
| 400/400w | 400 | 440 | 14 | 60 | 60000(4210) | 90000(6310) | 420 | 420(4275) | 620(6295) | 9 | 9 | 8 | 7 |
| 500/500w | 500 | 550 | 14 | 75 | 75000(5255) | 100000(7015) | 520 | 520(5275) | 690(7010) | .. | 7 | 7 | 6 |

Laboratory Technician

Test Performed By

Vetted By