



MATERIAL TESTING LABORATORY

MILITARY ENGINEER SERVICES (MES)

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

Job No : 233/19-20(Steel)
 Name of Client : GE (Navy) Dhaka.
 Ref Itr No : 2000/Test/134/E-2 Dt. 29 Oct'2019.
 Project Name : Not Mentioned
 Date of Collection : Sunday, 17 November, 2019

Copy No. : 01
 Sample Specimen : Length 600 mm Dia 10mm
 Sample Grade : 60
 Frog Mark : ASBRM 400

| 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 Strength | Ultimate Load | Ultimate Strength | Average Ultimate Strength | 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 | 0.394 10 | 0.395 10.022 | 0.1217 78.5398 | 0.416 0.619 | 0.416 0.619 | 7648.04 34.02 | 62824 433 | 61766 426 | 12063.3 53.66 | 99093 683 | 98102 676 | 16.5 | | 18 | |
| 2 | 0.394 10 | 0.395 10.022 | 0.1217 78.5398 | 0.416 0.619 | | 7645.79 34.01 | 62806 433 | | 12310.6 54.76 | 101125 697 | | 18.5 | | | |
| 3 | 0.394 10 | 0.395 10.022 | 0.1217 78.5398 | 0.416 0.619 | | 7263.61 32.31 | 59667 411 | | 11454.07 50.95 | 94089 649 | | 18 | | | |

Cautions:

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

Observation on Specimen(if any):

1.

| Minimum Standard Requirements (BDS/ISO 6935-2:1991(E)) | | | | Minimum Standard Requirements (ASTM A615/A616M-96a) | | | | | | | | | |
|--|-----------------|-----------------|------------|---|-------------------------------|----------------------------|--------------|-------------------------------|----------------------------|---|----------------|-------------|----------------|
| Grade | Y/strength | Ult.Str | Elongation | ASTM A 615 M | | | ASTM A 615 M | | | ASTM A 615/A 615 M | | | |
| | N/mm2 or Mpa | N/mm2 or Mpa | % | Grade | Y/strength psi (kg/cm2) | Ult.Str psi (kg/cm2) | Grade | Y/strength Mpa (kg/cm2) | Ult.Str Mpa (kg/cm2) | Minimum Elongation in 8"(203.2 mm) GL (%) | | | |
| | | | | | | | | | | 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 |

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No signature is required

Note : [1 Mpa = 145 Psi, 1 kg/cm2 = 14.223 psi] Laboratory Technician

Test Performed By

Vetted By