



MATERIAL TESTING LABORATORY

MILITARY ENGINEER SERVICES (MES)

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

Job No : 209/19-20(Steel).
 Name of Client : GE (Air) Chattogram.
 Ref Itr No : 6005/38/34/E-6 Dt. 13 Oct' 2019.
 Project Name : CE(Air)/275 of 2017-2018.
 Date of Collection : Thursday, 17 October, 2019

Copy No. : 03
 Sample Specimen : Length 600 mm Dia 16mm
 Sample Grade : 60
 Frog Mark : Baizid 500+

| Sample No | Nominal Dia | Actual Dia | Area Under Test | Actual 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 | 0.63 16 | 0.642 16.306 | 0.3116 201.0619 | 1.102 1.639 | 1.102 1.639 | 25666.56 114.17 | 82358 568 | 84628 583 | 30875.41 137.34 | 99072 683 | 101438 699 | 17 | | 16 | |
| 2 | 0.63 16 | 0.642 16.306 | 0.3116 201.0619 | 1.102 1.639 | | 27413.33 121.94 | 87963 606 | | 32610.94 145.06 | 104641 721 | | 14.5 | | | |
| 3 | 0.63 16 | 0.642 16.306 | 0.3116 201.0619 | 1.102 1.639 | | 26041.99 115.84 | 83563 576 | | 31352 139.46 | 100601 694 | | 17.5 | | | |

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 |

This is a computer generated copy
No signature is required

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

Test Performed By

Vetted By