



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 332

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

Job No : 94/2023-2024 (Steel).	Copy No : 01
Name of Client : GE (Army) Cumilla.	Sample Specimen : Length 600mm , Dia 10mm
Ref.Itr.No : EinC/308 of 2022-2023/10/E-6 Dt.22 Oct'2023.	Sample Grade : 60
Project Name : Construction of 1 X Milking parlour shed.	Frog Mark : Golden Ispat B-400 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	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	(Fult/Fy)	8inch	5d	8inch	5d
1	0.394 10.00	0.385 9.79	0.1217 78.5398	0.397 0.591	0.397 0.591	13145.61 58.47	107984 745	106058 731	15102.66 67.18	124060 856	122907 848	1.15	14.5		14	
2	0.394 10.00	0.385 9.79	0.1217 78.5398	0.397 0.591		12708.40 56.53	104392 720		14892.15 66.24	122331 844			12.5			
3	0.394 10.00	0.385 9.79	0.1217 78.5398	0.397 0.591		12879.58 57.29	105798 730		14892.15 66.24	122331 844			14.5			

**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 10 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)									
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	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)						
	psi (kg/cm2)	psi (kg/cm2)		Grade	psi (kg/cm2)	psi (kg/cm2)	Grade	Y/strength	Ult.Str				
	Mpa (kg/cm2)	Mpa (kg/cm2)			Mpa (kg/cm2)	Mpa (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