



## 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 : 94/2023-2024 (Steel).	Copy No : 03
Name of Client : GE (Army) Cumilla.	Sample Specimen : Length 600mm , Dia 20mm
Ref.ltr.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	0.787 20.00	0.774 19.66	0.4869 314.1593	1.601 2.383	1.601 2.383	37990.40 168.99	78017 538	76065 525	45985.14 204.55	94435 651	93259 643	1.21	17	21		
2	0.787 20.00	0.774 19.66	0.4869 314.1593	1.601 2.383		36396.54 161.90	74744 515		45073.71 200.50	92564 638		1.24	19.5			
3	0.787 20.00	0.774 19.66	0.4869 314.1593	1.601 2.383		36731.96 163.39	75433 520		45177.80 200.96	92778 640		1.23	25.5			

**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.

**Oservation on Specimen(if any):**

1. Diameter & Unit weight of 20 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