



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 101/2022-2023(Steel)  
 Name of Client : GE (Army) Mirpur.  
 Ref.ltr.No : EinC/83 of 2021-2022/23/E-6 Dt. 28 Sep'2022.  
 Project Name : Vertical Extension of C/D Type Qtr.  
 Dt. of Sample Collection: 02 Oct'2022

Copy No : 04  
 Sample Specimen : Length 600mm , Dia 20mm  
 Sample Grade : 60  
 Frog Mark : GPH B-420 DWR

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	0.787	0.4869	1.654	1.654 2.461	34280.58	70399	70224 484	48558.25	99720	99936 689	1.42	32			
	20.00	19.980	314.1593	2.461		152.49	486		216.00	688						
2	0.787	0.787	0.4869	1.654		34280.58	70399		48772.46	100160		48659.72	99928			
	20.00	19.980	314.1593	2.461	152.49	486	216.95	691	216.45	689	1.43	31				
3	0.787	0.787	0.4869	1.654	34025.78	69876										
	20.00	19.980	314.1593	2.461	151.35	482										

**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 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 Requirements(ASTM A615/A616M-96a)									
Grade	Y/strength N/mm <sup>2</sup> or Mpa	Ult.Str N/mm <sup>2</sup> or Mpa	Elongation %	ASTM A 615 M		ASTM A 615 M		ASTM A 615/A 615 M					
				Grade	Y/strength psi (kg/cm <sup>2</sup> )	Ult.Str psi (kg/cm <sup>2</sup> )	Grade	Y/strength Mpa (kg/cm <sup>2</sup> )	Ult.Str Mpa (kg/cm <sup>2</sup> )	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

Laboratory Technician

Test Performed By

Vetted By