



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 85/2023-2024 (Steel).

Copy No : 04

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA/811 of 2020-2021/102/E-6 Dt.04 Oct'2023.

Sample Grade : 60

Project Name : Construction of 1 X Metis Store House.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection: 08 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	0.780 19.82	0.4869 314.1593	1.628 2.422	1.628 2.422	44742.90 199.03	91884 634	91911 634	52374.46 232.97	107557 742	107295 740	1.17	21.5		21	
2	0.787 20.00	0.780 19.82	0.4869 314.1593	1.628 2.422		45094.53 200.59	92606 639		52226.41 232.31	107253 740		1.16	20.5			
3	0.787 20.00	0.780 19.82	0.4869 314.1593	1.628 2.422		44430.61 197.64	91243 629		52140.82 231.93	107077 738		1.17	20.5			

**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)										
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	

Laboratory Technician

Test Performed By

Vetted By