



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 69/2023-2024 (Steel).  
 Name of Client : AGE (Army) Bhatiary.  
 Ref.ltr.No : CEA/533 of 2022-2023/03/E-6 Dt.21 Sep'2023.  
 Project Name : Construction of 1 x Bridge.  
 Dt. of Sample Collection: 24 Sep'2023

Copy No : 02  
 Sample Specimen : Length 600mm , Dia 12mm  
 Sample Grade : 60  
 Frog Mark : KSRM 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 (Fult/Fy)	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
1	0.472 12.00	0.469 11.93	0.175 113.097	0.589 0.877	0.589 0.877	17068.96 75.93	97369 672	96811 668	21512.80 95.69	122719 846	118408 817	1.26	21.5		22	
2	0.472 12.00	0.469 11.93	0.175 113.097	0.589 0.877		16937.10 75.34	96617 666		21579.88 95.99	123102 849						
3	0.472 12.00	0.469 11.93	0.175 113.097	0.589 0.877		16907.03 75.21	96446 665		19178.68 85.31	109404 755						

**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 12 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