



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 : 03
 Sample Specimen : Length 600mm , Dia 20mm
 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	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	0.785 19.93	0.4869 314.1593	1.646 2.449	1.646 2.449	37229.32 165.60	76454 527	76616 528	51587.94 229.47	105941 731	106036 731	1.39	26		26	
2	0.787 20.00	0.785 19.93	0.4869 314.1593	1.646 2.449		37641.09 167.44	77300 533		51608.76 229.57	105984 731		1.37	26			
3	0.787 20.00	0.785 19.93	0.4869 314.1593	1.646 2.449		37053.51 164.82	76093 525		51705.92 230.00	106184 732		1.40	26.5			

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 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