



# MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 38/2023-2024 (Steel).	Copy No : 01
Name of Client : GE (Navy) Dhaka.	Sample Specimen : Length 600mm , Dia 10mm
Ref.ltr.No : CEN/149 of 2022-2023/09/E-2 Dt.27 Aug'2023.	Sample Grade : 60
Project Name : Vertical extension of existing SMBK.	Frog Mark : Purbachal 420 DWR
Dt. of Sample Collection : 31 Aug'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	0.394 10.00	0.401 10.18	0.1217 78.5398	0.429 0.639	0.429 0.639	13215.01 58.78	108554 749	107388 741	15930.82 70.86	130863 903	130926 903	1.21	23.5		23	
2	0.394 10.00	0.401 10.18	0.1217 78.5398	0.429 0.639		12747.72 56.70	104715 722		15782.77 70.20	129646 894		1.24	22.5			
3	0.394 10.00	0.401 10.18	0.1217 78.5398	0.429 0.639		13256.65 58.97	108896 751		16102.00 71.62	132269 912		1.21	22.5			

**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):

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E))				Minimum Standard Requirements(ASTM A615/A616M-96a)									
Grade	Y/strength N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M			
				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