



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 43/2023-2024 (Steel).	Copy No : 02
Name of Client : AGE (Navy) Kaptai.	Sample Specimen : Length 600mm , Dia 12mm
Ref.ltr.No : CEN/176 of 2022-2023/13/E-6 Dt.03 Sep'2023.	Sample Grade : 60
Project Name : Ferrocement Casting.	Frog Mark : Baizid B-420 DWR
Dt. of Sample Collection: 05 Sep'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 (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	5d
1	0.472	0.467	0.175	0.583	0.583 0.868	16872.33	96248	97268 671	19986.02	114010	114252 788	1.18	14.5	15		
	12.00	11.86	113.097	0.868		75.05	664		88.90	786						
2	0.472	0.467	0.175	0.583		17415.95	99349		20346.90	116068						
	12.00	11.86	113.097	0.868		77.47	685		90.51	800						
3	0.472	0.467	0.175	0.583		16865.39	96208		19752.38	112677						
	12.00	11.86	113.097	0.868		75.02	664		87.86	777						

**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 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