



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 90

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

Job No : 22/2025-2026 (Steel).	Copy No : 01
Name of Client : GE (Army) Savar.	Sample Specimen : Length 600mm , Dia 10mm
Ref.ltr.No : CEA/267 of 2021-2022/38/E-6 Dt.28 July'2025.	Sample Grade : 60
Project Name : Construction of Boundary Wall.	Frog Mark : GPH B-500 DWR.
Dt. of Sample Collection : 29 July'2025	

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		8inch	5d	8inch	5d
1	0.394 10.00	0.386 9.80	0.1217 78.5398	0.398 0.592	0.398 0.592	16620.18 73.93	136525 942	133643 922	19305.91 85.88	158587 1094	157080 1083	1.16	17	17		
2	0.394 10.00	0.386 9.80	0.1217 78.5398	0.398 0.592		16566.97 73.69	136088 939		19625.15 87.30	161209 1112		1.18	15.5			
3	0.394 10.00	0.386 9.80	0.1217 78.5398	0.398 0.592		15620.84 69.48	128316 885		18436.12 82.01	151442 1044		1.18	17.5			

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 10 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)									
				ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M			
Grade	Y/strength	Ult.Str	Elongation	Grade	Y/strength	Ult.Str	Grade	Y/strength	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)			
	N/mm2 or Mpa	N/mm2 or Mpa			psi (kg/cm2)	psi (kg/cm2)		Mpa (kg/cm2)	Mpa (kg/cm2)	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



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 91

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

Job No : 22/2025-2026 (Steel).	Copy No : 02
Name of Client : GE (Army) Savar.	Sample Specimen : Length 600mm , Dia 12mm
Ref.ltr.No : CEA/267 of 2021-2022/38/E-6 Dt.28 July'2025.	Sample Grade : 60
Project Name : Construction of Boundary Wall.	Frog Mark : GPH B-500 DWR.
Dt. of Sample Collection: 29 July'2025	

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		8inch	5d	8inch	5d	
1	0.472	12.00	0.469	11.92	0.175	113.097	0.589	0.877	0.589	0.877	20529.65	91.32	117111	808	117309	809	24337.33	108.26	138831	957	138950	958	1.19	16.5		18		
	2	0.472	12.00	0.469	11.92	0.175	113.097	0.589			0.877	20686.95	92.02	118008			814	24506.20	109.01	139795			964					
3	0.472	12.00	0.469	11.92	0.175	113.097	0.589	0.877	0.589	0.877	20476.44	91.08	116807	806	117309	809	24230.92	107.78	138224	953	138950	958	1.18	19.5		18		
	3	0.472	12.00	0.469	11.92	0.175	113.097	0.589			0.877	20476.44	91.08	116807			806	24230.92	107.78	138224			953					

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)									
				ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M			
Grade	Y/strength N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	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