



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 434

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

Job No : 73/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) Savar.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/332 of 2024-2025/17/E-6 Dt.24 Sep'2025.

Sample Grade : 60

Project Name : Construction of 1x SM BK.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection : 06 Oct'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	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	0.400 10.16	0.1217 78.5398	0.428 0.636	0.428 0.636	13865.04 61.67	113893 785	118296 816	18288.06 81.35	150226 1036	149966 1034	1.32	18.5		20	
2	0.394 10.00	0.400 10.16	0.1217 78.5398	0.428 0.636		15322.42 68.16	125865 868		18903.40 84.09	155281 1071		1.23	20			
3	0.394 10.00	0.400 10.16	0.1217 78.5398	0.428 0.636		14015.41 62.34	115129 794		17577.88 78.19	144392 996		1.25	20.5			

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):

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 (%)			
300	300	330	16	40	40000(2810)	70000(4910)	300	300(3050)	500(5090)	10 mm	13,16,19 mm	22,25 mm	29,32,36 mm
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

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Page no: 435

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

Job No : 73/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) Savar.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/332 of 2024-2025/17/E-6 Dt.24 Sep'2025.

Sample Grade : 60

Project Name : Construction of 1x SM BK.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 06 Oct'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	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 12.00	0.478 12.13	0.175 113.097	0.610 0.907	0.610 0.907	16631.75 73.98	94875 654	97233 671	21471.16 95.51	122482 845	123867 854	1.29	20.5		19	
2	0.472 12.00	0.478 12.13	0.175 113.097	0.610 0.907		17288.72 76.90	98623 680		21725.62 96.64	123933 855		1.26	17.5			
3	0.472 12.00	0.478 12.13	0.175 113.097	0.610 0.907		17214.70 76.57	98201 677		21945.38 97.62	125187 863		1.27	19.5			

Cautions:

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Ovservation on Specimen(if any):

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E))				Minimum Standard Requirments(ASTM A615/A616M-96a)									
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	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 (%)			
300	300	330	16	40	40000(2810)	70000(4910)	300	300(3050)	500(5090)	10 mm	13,16,19 mm	22,25 mm	29,32,36 mm
400/400w	400	440	14	60	60000(4210)	90000(6310)	420	420(4275)	620(6295)	9	9	8	7
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