



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 441

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

Job No : 75/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) Cumilla.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/344 of 2024-2025/11/E-6 Dt.08 Oct'2025.

Sample Grade : 60

Project Name : Construction of 1 x OPD Complex with Emergency DPT.

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection : 13 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	0.397 10.08	0.1217 78.5398	0.421 0.626	0.421 0.626	12174.03 54.15	100003 690	104741 722	14505.83 64.52	119157 822	124585 859	1.19	20		19	
2	0.394 10.00	0.397 10.08	0.1217 78.5398	0.421 0.626		12706.08 56.52	104373 720		15125.79 67.28	124250 857		1.19	19.5			
3	0.394 10.00	0.397 10.08	0.1217 78.5398	0.421 0.626		13372.31 59.48	109846 758		15868.36 70.59	130350 899		1.19	16.5			

Cautions:

1. Samples as supplied to the laboratory have been tested. The laboratory authority does not bear any responsibility as to the representative character of the samples to be tested.
2. It is recommended that samples are sent in a secured 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 authorized person and not by contractor/supplier.

Observation on Specimen(if any):

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

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MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 75/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) Cumilla.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/344 of 2024-2025/11/E-6 Dt.08 Oct'2025.

Sample Grade : 60

Project Name : Construction of 1 x OPD Complex with Emergency DPT.

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 13 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 12.14	0.175 113.097	0.610 0.908	0.610 0.908	18054.42 80.31	102991 710	96402 665	21598.39 96.07	123207 850	117920 813	1.20	15		18	
2	0.472 12.00	0.478 12.14	0.175 113.097	0.610 0.908		16002.53 71.18	91286 630		20282.12 90.22	115699 798		1.27	17			
3	0.472 12.00	0.478 12.14	0.175 113.097	0.610 0.908		16641.00 74.02	94928 655		20134.07 89.56	114854 792		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.

Ovservation on Specimen(if any):

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E)				Minimum Standard Requirments(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 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 (%)			
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

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MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

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

Job No : 75/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Army) Cumilla.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/344 of 2024-2025/11/E-6 Dt.08 Oct'2025.

Sample Grade : 60

Project Name : Construction of 1 x OPD Complex with Emergency DPT.

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 13 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	0.630 16.00	0.638 16.20	0.312 201.062	1.087 1.617	1.087 1.617	25690.61 114.28	82435 569	82759 571	32910.40 146.39	105602 728	105604 728	1.28	18		17	
2	0.630 16.00	0.638 16.20	0.312 201.062	1.087 1.617		25736.87 114.48	82584 570		32762.35 145.73	105127 725		1.27	15.5			
3	0.630 16.00	0.638 16.20	0.312 201.062	1.087 1.617		25947.38 115.42	83259 574		33060.77 147.06	106084 732		1.27	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):

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	psi (kg/cm2)	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

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Page no: 444

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

Job No : 75/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Army) Cumilla.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA/344 of 2024-2025/11/E-6 Dt.08 Oct'2025.

Sample Grade : 60

Project Name : Construction of 1 x OPD Complex with Emergency DPT.

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 13 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	0.787 20.00	0.790 20.07	0.4869 314.1593	1.669 2.483	1.669 2.483	37867.79 168.44	77766 536	78526 542	49910.81 222.01	102497 707	103414 713	1.32	20.5		22	
2	0.787 20.00	0.790 20.07	0.4869 314.1593	1.669 2.483		39258.08 174.63	80621 556		51250.20 227.97	105248 726		1.31	23.5			
3	0.787 20.00	0.790 20.07	0.4869 314.1593	1.669 2.483		37587.88 167.20	77191 532		49910.81 222.01	102497 707		1.33	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)									
				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

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