



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 74

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

Job No : 18/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/340 of 2024-2025/10/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 300 Bed Combined Military Hospital (CMH).

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection : 24 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	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	0.395 10.03	0.1217 78.5398	0.416 0.620	0.416 0.620	14341.58 63.79	117808 812	112798 778	15741.13 70.02	129304 892	129824 895	1.10	18		18	
2	0.394 10.00	0.395 10.03	0.1217 78.5398	0.416 0.620		13682.29 60.86	112392 775		16081.18 71.53	132098 911		1.18	21.5			
3	0.394 10.00	0.395 10.03	0.1217 78.5398	0.416 0.620		13171.06 58.59	108193 746		15590.76 69.35	128069 883		1.18	15			

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

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

Job No : 18/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/340 of 2024-2025/10/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 300 Bed Combined Military Hospital (CMH).

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 24 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	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	0.480 12.20	0.175 113.097	0.616 0.917	0.616 0.917	16178.34 71.96	92289 636	92931 641	20536.59 91.35	117150 808	117639 811	1.27	16.5		17	
2	0.472 12.00	0.480 12.20	0.175 113.097	0.616 0.917		16381.91 72.87	93450 644		20707.77 92.11	118127 815		1.26	18.5			
3	0.472 12.00	0.480 12.20	0.175 113.097	0.616 0.917		16312.51 72.56	93054 642		20622.18 91.73	117639 811		1.26	17			

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

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

Job No : 18/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/340 of 2024-2025/10/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 300 Bed Combined Military Hospital (CMH).

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 24 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	0.630 16.00	0.000 0.00	0.312 201.062	0.000 0.000	0.000 0.000	36921.65 164.23	118473 817	118908 820	47683.10 212.10	153004 1055	153345 1058	1.29	20.5		23	
2	0.630 16.00	0.000 0.00	0.312 201.062	0.000 0.000		37328.79 166.05	119779 826		48002.34 213.52	154028 1062		1.29	23.5			
3	0.630 16.00	0.000 0.00	0.312 201.062	0.000 0.000		36921.65 164.23	118473 817		47683.10 212.10	153004 1055		1.29	23.5			

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

Job No : 18/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA/340 of 2024-2025/10/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 300 Bed Combined Military Hospital (CMH).

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 24 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	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	0.795 20.18	0.4869 314.1593	1.688 2.512	1.688 2.512	36921.65 164.23	75823 523	76466 527	47683.10 212.10	97922 675	98562 680	1.29	20.5		23	
2	0.787 20.00	0.795 20.18	0.4869 314.1593	1.688 2.512		37328.79 166.05	76659 529		48002.34 213.52	98578 680		1.29	23.5			
3	0.787 20.00	0.795 20.18	0.4869 314.1593	1.688 2.512		37453.71 166.60	76915 530		48298.44 214.84	99186 684		1.29	23.5			

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

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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 : 18/2025-2026 (Steel).

Copy No : 05

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 25mm

Ref.ltr.No : CEA/340 of 2024-2025/10/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 300 Bed Combined Military Hospital (CMH).

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 24 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	0.984 25.00	0.986 25.05	0.7609 490.8739	2.600 3.869	2.600 3.869	51250.20 227.97	67359 465	69224 477	70309.44 312.75	92408 637	94231 650	1.37	27		24	
2	0.984 25.00	0.986 25.05	0.7609 490.8739	2.600 3.869		52707.58 234.45	69274 478		72347.45 321.82	95087 656		1.37	23.5			
3	0.984 25.00	0.986 25.05	0.7609 490.8739	2.600 3.869		54051.60 240.43	71041 490		72430.73 322.19	95196 657		1.34	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.

Obsvervation 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 (%)			
										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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