



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 193

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

Job No : 74/2024-2025 (Steel).

Copy No : 05

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 25mm

Ref.ltr.No : EinC/165 of 2023-2024/50/E-6 Dt.11 Mar'2025.

Sample Grade : 72.5

Project Name : Construction of 1 x Office Cum Laboratory Building.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection: 13 Mar'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	0.984 25.00	0.986 25.06	0.7609 490.8739	2.601 3.871	2.601 3.871	68527.26 304.82	90066 621	90066 621	80259.66 357.01	105486 727	105358 727	1.17	22.5		23	
2	0.984 25.00	0.986 25.06	0.7609 490.8739	2.601 3.871		68527.26 304.82	90066 621		80218.43 356.83	105432 727		1.17	24.5			
3	0.984 25.00	0.986 25.06	0.7609 490.8739	2.601 3.871		68527.26 304.82	90066 621		80007.69 355.89	105155 725		1.17	23			

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)

Page no: 189

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

Job No : 74/2024-2025 (Steel).

Copy No : 01

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : EinC/165 of 2023-2024/50/E-6 Dt.11 Mar'2025.

Sample Grade : 72.5

Project Name : Construction of 1 x Office Cum Laboratory Building.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection : 13 Mar'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	0.396 10.06	0.1217 78.5398	0.419 0.624	0.419 0.624	14469.36 64.36	118858 820	119560 825	16707.26 74.32	137241 946	137354 947	1.15	18.5		19	
2	0.394 10.00	0.396 10.06	0.1217 78.5398	0.419 0.624		14648.02 65.16	120325 830		16748.49 74.50	137579 949		1.14	18.5			
3	0.394 10.00	0.396 10.06	0.1217 78.5398	0.419 0.624		14547.24 64.71	119497 824		16707.26 74.32	137241 946		1.15	19			

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 authorised 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	Ult.Str	Elongation	ASTM A 615 M		ASTM A 615 M		ASTM A 615/A 615 M					
	N/mm ² or Mpa	N/mm ² or Mpa	%	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)

Page no: 190

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

Job No : 74/2024-2025 (Steel).

Copy No : 02

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : EinC/165 of 2023-2024/50/E-6 Dt.11 Mar'2025.

Sample Grade : 72.5

Project Name : Construction of 1 x Office Cum Laboratory Building.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection: 13 Mar'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	0.476 12.10	0.175 113.097	0.606 0.902	0.606 0.902	19394.12 86.27	110633 763	109849 758	22465.80 99.93	128155 884	128312 885	1.16	21.5		21	
2	0.472 12.00	0.476 12.10	0.175 113.097	0.606 0.902		18894.77 84.05	107785 743		22486.42 100.02	128273 885		1.19	20.5			
3	0.472 12.00	0.476 12.10	0.175 113.097	0.606 0.902		19481.17 86.66	111130 766		22527.65 100.21	128508 886		1.16	19.5			

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)

Page no: 191

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

Job No : 74/2024-2025 (Steel).

Copy No : 03

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : EinC/165 of 2023-2024/50/E-6 Dt.11 Mar'2025.

Sample Grade : 72.5

Project Name : Construction of 1 x Office Cum Laboratory Building.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection: 13 Mar'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	0.633 16.07	0.312 201.062	1.070 1.592	1.070 1.592	30535.55 135.83	97981 676	97464 672	35054.88 155.93	112483 776	112573 776	1.15	19.5		20	
2	0.630 16.00	0.633 16.07	0.312 201.062	1.070 1.592		30620.30 136.21	98253 678		35309.14 157.06	113299 781		1.15	20			
3	0.630 16.00	0.633 16.07	0.312 201.062	1.070 1.592		29967.48 133.30	96159 663		34885.38 155.18	111939 772		1.16	21			

Cautions:

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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)

Page no: 192

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

Job No : 74/2024-2025 (Steel).

Copy No : 04

Name of Client : GE (Army) Sylhet.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : EinC/165 of 2023-2024/50/E-6 Dt.11 Mar'2025.

Sample Grade : 72.5

Project Name : Construction of 1 x Office Cum Laboratory Building.

Frog Mark : KSRM B-500 CWR.

Dt. of Sample Collection: 13 Mar'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	0.792 20.12	0.4869 314.1593	1.677 2.496	1.677 2.496	43307.87 192.64	88937 613	87438 603	51274.54 228.08	105298 726	105188 725	1.18	23		23	
2	0.787 20.00	0.792 20.12	0.4869 314.1593	1.677 2.496		42858.92 190.65	88015 607		51130.23 227.44	105001 724		1.19	22.5			
3	0.787 20.00	0.792 20.12	0.4869 314.1593	1.677 2.496		41567.03 184.90	85362 589		51258.51 228.01	105265 726		1.23	23			

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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