



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 36

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

Job No : 10/2025-2026 (Steel). Copy No : 01
Name of Client : AGE (Army) Momenshahi. Sample Specimen : Length 600mm , Dia 10mm
Ref.ltr.No : CEA /262 of 2022-2023/35/E-6 Dt.08 July'2025. Sample Grade : 60
Project Name : Construction of 1 x 660 SMBK Frog Mark : Baizid B-420 DWR.
Dt. of Sample Collection : 09 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	0.399 10.13	0.1217 78.5398	0.425 0.633	0.425 0.633	12245.74 54.47	100592 694	104861 723	16800.62 74.73	138008 952	132896 917	1.37	17		20	
2	0.394 10.00	0.399 10.13	0.1217 78.5398	0.425 0.633		12345.21 54.91	101409 699		15167.43 67.47	124592 859		1.23	22			
3	0.394 10.00	0.399 10.13	0.1217 78.5398	0.425 0.633		13705.43 60.96	112582 776		16566.97 73.69	136088 939		1.21	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 psi (kg/cm2)	Ult.Str psi (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

Vetted By



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 37

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

Job No : 10/2025-2026 (Steel).

Copy No : 02

Name of Client : AGE (Army) Momenshahi.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA /262 of 2022-2023/35/E-6 Dt.08 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x 660 SMBK

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 09 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	0.481 12.23	0.175 113.097	0.619 0.922	0.619 0.922	18137.70 80.68	103466 714	103404 713	23402.76 104.10	133500 921	133135 918	1.29	17.5		17	
2	0.472 12.00	0.481 12.23	0.175 113.097	0.619 0.922		19629.78 87.32	111977 772		25079.90 111.56	143067 987		1.28	19			
3	0.472 12.00	0.481 12.23	0.175 113.097	0.619 0.922		16613.24 73.90	94770 654		21533.62 95.79	122838 847		1.30	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

Laboratory Technician

Test Performed By

Vetted By



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 38

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

Job No : 10/2025-2026 (Steel).

Copy No : 03

Name of Client : AGE (Army) Momenshahi.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA /262 of 2022-2023/35/E-6 Dt.08 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x 660 SMBK

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 09 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	0.630 16.00	0.634 16.10	0.312 201.062	1.073 1.597	1.073 1.597	25884.92 115.14	83059 573	84066 580	33007.56 146.82	105913 730	107660 742	1.28	21.5		21	
2	0.630 16.00	0.634 16.10	0.312 201.062	1.073 1.597		25736.87 114.48	82584 570		33356.87 148.38	107034 738		1.30	19.5			
3	0.630 16.00	0.634 16.10	0.312 201.062	1.073 1.597		26974.49 119.99	86555 597		34291.44 152.54	110033 759		1.27	21			

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 (%)			
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

Vetted By



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 39

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

Job No : 10/2025-2026 (Steel).

Copy No : 04

Name of Client : AGE (Army) Momenshahi.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA /262 of 2022-2023/35/E-6 Dt.08 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x 660 SMBK

Frog Mark : Baizid B-420 DWR.

Dt. of Sample Collection: 09* 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	0.790 20.06	0.4869 314.1593	1.668 2.482	1.668 2.482	38746.84 172.35	79571 549	80201 553	49494.41 220.16	101642 701	101821 702	1.28	22		21	
2	0.787 20.00	0.790 20.06	0.4869 314.1593	1.668 2.482		39341.36 175.00	80792 557		49741.93 221.26	102150 704		1.26	21.5			
3	0.787 20.00	0.790 20.06	0.4869 314.1593	1.668 2.482		39073.02 173.80	80241 553		49508.29 220.22	101671 701		1.27	18			

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

Vetted By