



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 339

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

Job No : 38/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Navy) Patuakhali.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : EinC/73 of 2024-2025/42/E-6 Dt.10 Aug'2025.

Sample Grade : 72.5

Project Name : Provision of Firefighting system.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 11 Aug'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	0.617 0.918	0.617 0.918	19608.96 87.22	111859 771	104091 718	22595.42 100.51	128895 889	130390 899	1.15	15.5		18	
2	0.472 12.00	0.480 12.20	0.175 113.097	0.617 0.918		17716.68 78.81	101064 697		23148.30 102.97	132049 911		1.31	18.5			
3	0.472 12.00	0.480 12.20	0.175 113.097	0.617 0.918		17415.95 77.47	99349 685		22829.06 101.55	130228 898		1.31	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.

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

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

Job No : 38/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Navy) Patuakhali.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : EinC/73 of 2024-2025/42/E-6 Dt.10 Aug'2025.

Sample Grade : 72.5

Project Name : Provision of Firefighting system.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 11 Aug'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	0.635 16.13	0.312 201.062	1.078 1.604	1.078 1.604	26162.52 116.38	83949 579	84093 580	33340.67 148.31	106982 738	107230 740	1.27	25.5		24	
2	0.630 16.00	0.635 16.13	0.312 201.062	1.078 1.604		26629.81 118.45	85449 589		33514.17 149.08	107539 742		1.26	23.5			
3	0.630 16.00	0.635 16.13	0.312 201.062	1.078 1.604		25829.41 114.89	82880 572		33398.51 148.56	107168 739		1.29	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.

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

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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 : 38/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Navy) Patuakhali.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : EinC/73 of 2024-2025/42/E-6 Dt.10 Aug'2025.

Sample Grade : 72.5

Project Name : Provision of Firefighting system.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 11 Aug'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	0.788 20.02	0.4869 314.1593	1.661 2.472	1.661 2.472	39676.79 176.49	81481 562	79888 551	49647.09 220.84	101956 703	100963 696	1.25	19.5		20	
2	0.787 20.00	0.788 20.02	0.4869 314.1593	1.661 2.472		38617.30 171.78	79305 547		49168.24 218.71	100972 696		1.27	21			
3	0.787 20.00	0.788 20.02	0.4869 314.1593	1.661 2.472		38409.10 170.85	78877 544		48675.51 216.52	99960 689		1.27	20.5			

Cautions:

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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 : 38/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Navy) Patuakhali.

Sample Specimen : Length 600mm , Dia 25mm

Ref.ltr.No : EinC/73 of 2024-2025/42/E-6 Dt.10 Aug'2025.

Sample Grade : 72.5

Project Name : Provision of Firefighting system.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 11 Aug'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	1.002 25.45	0.7609 490.8739	2.683 3.992	2.683 3.992	58280.31 259.24	76598 528	76595 528	75979.33 337.97	99860 689	100116 690	1.30	24.5		24	
2	0.984 25.00	1.002 25.45	0.7609 490.8739	2.683 3.992		58967.36 262.30	77501 534		76714.95 341.24	100827 695		1.30	22.5			
3	0.984 25.00	1.002 25.45	0.7609 490.8739	2.683 3.992		57586.32 256.16	75686 522		75826.65 337.29	99660 687		1.32	23.5			

Cautions:

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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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