



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 : 86/2024-2025 (Steel).

Copy No : 01

Name of Client : GE (Navy) Khulna.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : EinC/40 of 2023-2024/39/E-6 Dt.05 May'2025.

Sample Grade : 72.5

Project Name : Construction of BNS Mongla Annex Boundary wall.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection : 06 May'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	0.388 9.86	0.1217 78.5398	0.403 0.600	0.403 0.600	14272.18 63.49	117238 809	115692 798	16717.34 74.36	137323 947	136475 941	1.17	16.5		16	
2	0.394 10.00	0.388 9.86	0.1217 78.5398	0.403 0.600		14191.22 63.13	116573 804		16726.59 74.40	137399 948		1.18	15			
3	0.394 10.00	0.388 9.86	0.1217 78.5398	0.403 0.600		13788.71 61.33	113266 781		16398.10 72.94	134701 929		1.19	17			

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 use 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):

1. Diameter & Unit weight of 10 mm bar is less than the standard value but within tolerance limit according to MES Schedule of Rates-2016.

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E))				Minimum Standard Requirements (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)				
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 : 86/2024-2025 (Steel).

Copy No : 02

Name of Client : GE (Navy) Khulna.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : EinC/40 of 2023-2024/39/E-6 Dt.05 May'2025.

Sample Grade : 72.5

Project Name : Construction of BNS Mongla Annex Boundary wall.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection: 06 May'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	0.468 11.88	0.175 113.097	0.585 0.870	0.585 0.870	19268.90 85.71	109919 758	109272 754	23000.25 102.31	131204 905	130474 900	1.19	17		17	
2	0.472 12.00	0.468 11.88	0.175 113.097	0.585 0.870		19083.84 84.89	108863 751		22808.24 101.46	130109 897		1.20	15.5			
3	0.472 12.00	0.468 11.88	0.175 113.097	0.585 0.870		19113.91 85.02	109035 752		22808.24 101.46	130109 897		1.19	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):

1. Diameter & Unit weight of 12 mm bar is less than the standard value but within tolerance limit according to MES Schedule of Rates-2016.

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 : 86/2024-2025 (Steel).

Copy No : 03

Name of Client : GE (Navy) Khulna.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : EinC/40 of 2023-2024/39/E-6 Dt.05 May'2025.

Sample Grade : 72.5

Project Name : Construction of BNS Mongla Annex Boundary wall.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection: 06 May'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	0.626 15.89	0.312 201.062	1.047 1.557	1.047 1.557	30576.29 136.01	98112 677	97899 675	37048.89 164.80	118881 820	118884 820	1.21	18.5		18	
2	0.630 16.00	0.626 15.89	0.312 201.062	1.047 1.557		30520.77 135.76	97934 675		36986.43 164.52	118681 818		1.21	16			
3	0.630 16.00	0.626 15.89	0.312 201.062	1.047 1.557		30432.86 135.37	97652 673		37113.66 165.09	119089 821		1.22	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):

1. Diameter & Unit weight of 16 mm bar is less than the standard value but within tolerance limit according to MES Schedule of Rates-2016.

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E)				Minimum Standard Requirments(ASTM A615/A616M-96a)									
Grade				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 (%)			
N/mm2 or Mpa										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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