



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 : 78/2024-2025 (Steel).

Copy No : 02

Name of Client : GE (Navy) Dhaka.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : 6000/Naval HQ CW & MC/63/E-6 Dt.23 Mar 2025.

Sample Grade : 72.5

Project Name : Construction of CW & MC and multipurpose complex.

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection: 13 Apr'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	0.787 20.00	0.785 19.95	0.4869 314.1593	1.649 2.454	1.649 2.454	42806.23 190.41	87907 606	87346 602	55370.11 246.30	113709 784	113538 783	1.29	21		22	
2	0.787 20.00	0.785 19.95	0.4869 314.1593	1.649 2.454		42643.60 189.69	87573 604		55312.85 246.04	113591 783		1.30	22.5			
3	0.787 20.00	0.785 19.95	0.4869 314.1593	1.649 2.454		42148.83 187.49	86557 597		55177.71 245.44	113313 781		1.31	21.5			

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 20 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 N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	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 (%)			
										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

Laboratory Technician

Test Performed By

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Page no: 211

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

Job No : 78/2024-2025 (Steel).

Copy No : 01

Name of Client : GE (Navy) Dhaka.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : 6000/Naval HQ CW & MC/63/E-6 Dt.23 Mar 2025.

Sample Grade : 72.5

Project Name : Construction of CW & MC and multipurpose complex.

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection: 13 Apr'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	0.472 12.00	0.175 113.097	0.596 0.887	0.596 0.887	19568.21 87.04	111626 770	112397 775	23645.46 105.18	134885 930	135015 931	1.21	19.5		19	
2	0.472 12.00	0.472 12.00	0.175 113.097	0.596 0.887		19788.10 88.02	112881 778		23759.99 105.69	135538 935		1.20	19.5			
3	0.472 12.00	0.472 12.00	0.175 113.097	0.596 0.887		19753.75 87.87	112685 777		23599.64 104.98	134623 928		1.19	17.5			

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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