



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 : 79/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Navy) South, Chattogram.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEN/228 of 2021-2022/102/E-6 Dt.20 Nov'2025.

Sample Grade : 72.5

Project Name : Construction of Wall with concertina razor wire.

Frog Mark : AKS B-500 DWR.

Dt. of Sample Collection : 26 Nov'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	0.397 10.09	0.1217 78.5398	0.422 0.628	0.422 0.628	14158.83 62.98	116307 802	115610 797	16950.98 75.40	139243 960	138945 958	1.20	18		19	
2	0.394 10.00	0.397 10.09	0.1217 78.5398	0.422 0.628		14063.99 62.56	115528 797		16907.03 75.21	138882 958		1.20	19.5			
3	0.394 10.00	0.397 10.09	0.1217 78.5398	0.422 0.628		13999.22 62.27	114996 793		16886.21 75.11	138711 957		1.21	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 authorized 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 N/mm ² or Mpa	Ult.Str N/mm ² or Mpa	Elongation %	ASTM A 615 M		ASTM A 615 M		ASTM A 615 M		ASTM A 615/A 615 M			
				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)

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

Job No : 79/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Navy) South, Chattogram.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEN/228 of 2021-2022/102/E-6 Dt.20 Nov'2025.

Sample Grade : 72.5

Project Name : Construction of Wall with concertina razor wire.

Frog Mark : AKS B-500 DWR.

Dt. of Sample Collection: 26 Nov'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	0.475 12.07	0.175 113.097	0.603 0.898	0.603 0.898	18635.06 82.89	106303 733	105481 727	22549.15 100.30	128631 887	127584 880	1.21	20.5		21	
2	0.472 12.00	0.475 12.07	0.175 113.097	0.603 0.898		18491.63 82.25	105485 727		22396.48 99.62	127760 881		1.21	20			
3	0.472 12.00	0.475 12.07	0.175 113.097	0.603 0.898		18345.90 81.61	104654 722		22151.27 98.53	126361 871		1.21	22			

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)									
				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)	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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Page no: 465

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

Job No : 79/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Navy) South, Chattogram.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEN/228 of 2021-2022/102/E-6 Dt.20 Nov'2025.

Sample Grade : 60

Project Name : Construction of Wall with concertina razor wire.

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection: 26 Nov'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 16.08	0.312 201.062	1.071 1.594	1.071 1.594	29179.06 129.79	93629 646	94153 649	36977.17 164.48	118651 818	119594 825	1.27	22.5		22	
2	0.630 16.00	0.633 16.08	0.312 201.062	1.071 1.594		29799.02 132.55	95618 659		37728.99 167.83	121063 835		1.27	22.5			
3	0.630 16.00	0.633 16.08	0.312 201.062	1.071 1.594		29049.51 129.22	93213 643		37106.72 165.06	119067 821		1.28	22			

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 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

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