



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 46

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

Job No : 12/2025-2026 (Steel).

Copy No :01

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 08mm

Ref.ltr.No : CEA (Air)/235 of 2024-2025/08/E-6 Dt.14 July'2025.

Sample Grade : 72.50

Project Name : Repair/Maint works of Bldg No: 205 Raised platform.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection: 15 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	0.315 8.00	0.305 7.74	0.0779 50.2655	0.248 0.370	0.248 0.370	11783.08 52.4135	151236 1043	FALSE 1038	15359.43 68.3218	197139 1360	188598 1301	1.30	14		14	
2	0.315 8.00	0.305 7.74	0.0779 50.2655	0.248 0.370		11783.08 52.4135	151236 1043		15146.61 67.3752	194407 1341		1.29	12			
3	0.315 8.00	0.305 7.74	0.0779 50.2655	0.248 0.370		11623.46 51.70349	149188 1029		13575.88 60.3883	174247 1202		1.17	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.

Oservation on Specimen(if any):

1. Diameter & Unit weight of 8 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

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

Job No : 12/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA (Air)/235 of 2024-2025/08/E-6 Dt.14 July'2025.

Sample Grade : 72.50

Project Name : Repair/Maint works of Bldg No: 205 Raised platform.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection : 15 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	0.389 9.88	0.1217 78.5398	0.404 0.602	0.404 0.602	14746.41 65.59	121133 835	127011 876	18033.60 80.22	148136 1022	153190 1056	1.22	15		16	
2	0.394 10.00	0.389 9.88	0.1217 78.5398	0.404 0.602		15847.54 70.49	130179 898		18903.40 84.09	155281 1071		1.19	17.5			
3	0.394 10.00	0.389 9.88	0.1217 78.5398	0.404 0.602		15792.02 70.25	129722 895		19009.81 84.56	156155 1077		1.20	15.5			

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 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 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 : 12/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA (Air)/235 of 2024-2025/08/E-6 Dt.14 July'2025.

Sample Grade : 72.50

Project Name : Repair/Maint works of Bldg No: 205 Raised platform.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection: 15 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	0.467 11.86	0.175 113.097	0.583 0.868	0.583 0.868	20902.09 92.98	119235 822	113706 784	24862.45 110.59	141827 978	135145 932	1.19	13		15	
2	0.472 12.00	0.467 11.86	0.175 113.097	0.583 0.868		19137.04 85.13	109167 753		22766.60 101.27	129871 896		1.19	14.5			
3	0.472 12.00	0.467 11.86	0.175 113.097	0.583 0.868		19759.32 87.89	112716 777		23444.40 104.29	133738 922		1.19	17.5			

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

Job No : 12/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA (Air)/235 of 2024-2025/08/E-6 Dt.14 July'2025.

Sample Grade : 72.50

Project Name : Repair/Maint works of Bldg No: 205 Raised platform.

Frog Mark : GPH B-500 DWR.

Dt. of Sample Collection: 15 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	0.623 15.83	0.312 201.062	1.039 1.546	1.039 1.546	30432.86 135.37	97652 673	97889 675	37601.76 167.26	120655 832	120942 834	1.24	19.5		19	
2	0.630 16.00	0.623 15.83	0.312 201.062	1.039 1.546		30534.65 135.82	97978 676		37668.85 167.56	120870 834		1.23	19			
3	0.630 16.00	0.623 15.83	0.312 201.062	1.039 1.546		30553.15 135.91	98038 676		37803.02 168.16	121301 837		1.24	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.

Obsverson 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	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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