



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 : 59/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 08mm

Ref.ltr.No : CE (Air)/235 of 2024-2025/28/E-6 Dt.08 Sep'2025.

Sample Grade : 72.5

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

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection: 09 Sep'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	0.315 7.99	0.0779 50.2655	0.265 0.394	0.265 0.394	11218.63 49.90274	143992 993	143388 989	13490.29 60.0075	173149 1194	170338 1175	1.20	17.5		16	
2	0.315 8.00	0.315 7.99	0.0779 50.2655	0.265 0.394		11135.36 49.5323	142923 986		13256.65 58.9682	170150 1173		1.19	14.5			
3	0.315 8.00	0.315 7.99	0.0779 50.2655	0.265 0.394		11160.80 49.64549	143249 988		13066.96 58.1245	167715 1157		1.17	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.

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

Job No : 59/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CE (Air)/235 of 2024-2025/28/E-6 Dt.08 Sep'2025.

Sample Grade : 72.5

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

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection : 09 Sep'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	0.390 9.90	0.1217 78.5398	0.406 0.604	0.406 0.604	13321.42 59.26	109428 755	111125 766	16143.64 71.81	132611 915	137932 951	1.21	15.5		16	
2	0.394 10.00	0.390 9.90	0.1217 78.5398	0.406 0.604		13531.93 60.19	111157 767		16731.22 74.42	137437 948		1.24	16			
3	0.394 10.00	0.390 9.90	0.1217 78.5398	0.406 0.604		13730.87 61.08	112791 778		17499.23 77.84	143746 991		1.27	16.5			

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 psi (kg/cm2)	Ult.Str psi (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 : 59/2025-2026 (Steel). Copy No : 03
Name of Client : GE (Air) Chattogram. Sample Specimen : Length 600mm , Dia 12mm
Ref.ltr.No : CE (Air)/235 of 2024-2025/28/E-6 Dt.08 Sep'2025. Sample Grade : 72.5
Project Name : Repair/Maint works of Bldg No:205 raised platform. Frog Mark : BSRM B-500 DWR.
Dt. of Sample Collection: 09 Sep'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 11.98	0.175 113.097	0.595 0.885	0.595 0.885	19243.45 85.60	109774 757	110768 764	23849.23 106.09	136047 938	137090 945	1.24	17.5		17	
2	0.472 12.00	0.472 11.98	0.175 113.097	0.595 0.885		19308.23 85.89	110143 760		23932.50 106.46	136522 942		1.24	16			
3	0.472 12.00	0.472 11.98	0.175 113.097	0.595 0.885		19701.49 87.64	112386 775		24314.20 108.15	138700 957		1.23	16.5			

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 : 59/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Air) Chattogram.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CE (Air)/235 of 2024-2025/28/E-6 Dt.08 Sep'2025.

Sample Grade : 72.5

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

Frog Mark : BSRM B-500 DWR.

Dt. of Sample Collection: 09 Sep'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	0.630 16.00	0.627 15.94	0.312 201.062	1.052 1.566	1.052 1.566	29960.95 133.27	96138 663	95311 657	37846.97 168.35	121442 838	120395 830	1.26	17.5		19	
2	0.630 16.00	0.627 15.94	0.312 201.062	1.052 1.566		29826.78 132.68	95707 660		37305.66 165.94	119705 826		1.25	19.5			
3	0.630 16.00	0.627 15.94	0.312 201.062	1.052 1.566		29322.48 130.43	94089 649		37409.76 166.41	120039 828		1.28	20			

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):

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 (%)			
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 : 59/2025-2026 (Steel). Copy No : 05
Name of Client : GE (Air) Chattogram. Sample Specimen : Length 600mm , Dia 25mm
Ref.ltr.No : CE (Air)/235 of 2024-2025/28/E-6 Dt.08 Sep'2025. Sample Grade : 72.5
Project Name : Repair/Maint works of Bldg No:205 raised platform. Frog Mark : BSRM B-500 DWR.
Dt. of Sample Collection: 09 Sep'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	0.988 25.08	0.7609 490.8739	2.607 3.879	2.607 3.879	67764.82 301.43	89064 614	89470 617	84189.21 374.49	110651 763	111507 769	1.24	19.5		21	
2	0.984 25.00	0.988 25.08	0.7609 490.8739	2.607 3.879		67767.13 301.44	89067 614		84848.50 377.42	111517 769		1.25	23.5			
3	0.984 25.00	0.988 25.08	0.7609 490.8739	2.607 3.879		68690.13 305.55	90280 623		85484.65 380.25	112353 775		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.

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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