



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 : 06/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) CMH, Dhaka.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/418 of 2024-2025/07/E-6 Dt.25 Jun'2025.

Sample Grade : 60

Project Name : Construction of Multistoried Hospital Bldg.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection : 02 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	0.396 10.07	0.1217 78.5398	0.420 0.625	0.420 0.625	14559.03 64.76	119594 825	116471 803	17948.01 79.84	147433 1017	145570 1004	1.23	15.5		16	
2	0.394 10.00	0.396 10.07	0.1217 78.5398	0.420 0.625		13999.22 62.27	114996 793		17522.36 77.94	143936 993		1.25	16.5			
3	0.394 10.00	0.396 10.07	0.1217 78.5398	0.420 0.625		13978.40 62.18	114825 792		17693.55 78.70	145342 1002		1.27	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):

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 : 06/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) CMH, Dhaka.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/418 of 2024-2025/07/E-6 Dt.25 Jun'2025.

Sample Grade : 60

Project Name : Construction of Multistoried Hospital Bldg.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 02 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	0.478 12.14	0.175 113.097	0.611 0.909	0.611 0.909	17365.06 77.24	99058 683	100638 694	22299.32 99.19	127206 877	128213 884	1.28	18.5		18	
2	0.472 12.00	0.478 12.14	0.175 113.097	0.611 0.909		17628.78 78.42	100563 694		22361.78 99.47	127562 880		1.27	17.5			
3	0.472 12.00	0.478 12.14	0.175 113.097	0.611 0.909		17931.82 79.76	102291 705		22766.60 101.27	129871 896		1.27	18			

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	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)

Page no: 23

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

Job No : 06/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Army) CMH, Dhaka.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/418 of 2024-2025/07/E-6 Dt.25 Jun'2025.

Sample Grade : 60

Project Name : Construction of Multistoried Hospital Bldg.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 02 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	0.637 16.18	0.312 201.062	1.085 1.614	1.085 1.614	27883.61 124.03	89472 617	87765 605	36371.09 161.79	116706 805	114276 788	1.30	20.5		20	
2	0.630 16.00	0.637 16.18	0.312 201.062	1.085 1.614		27541.24 122.51	88373 609		36095.81 160.56	115823 799		1.31	19			
3	0.630 16.00	0.637 16.18	0.312 201.062	1.085 1.614		26629.81 118.45	85449 589		34374.72 152.91	110300 761		1.29	20.5			

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):

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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Page no: 24

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

Job No : 06/2025-2026 (Steel). Copy No : 04
Name of Client : GE (Army) CMH, Dhaka. Sample Specimen : Length 600mm , Dia 20mm
Ref.ltr.No : CEA/418 of 2024-2025/07/E-6 Dt.25 Jun'2025. Sample Grade : 60
Project Name : Construction of Multistoried Hospital Bldg. Frog Mark : RSM B-420 DWR.
Dt. of Sample Collection: 02 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	0.787 20.00	0.791 20.09	0.4869 314.1593	1.673 2.489	1.673 2.489	38790.80 172.55	79661 549	80432 555	51250.20 227.97	105248 726	104635 722	1.32	19.5		19	
2	0.787 20.00	0.791 20.09	0.4869 314.1593	1.673 2.489		39542.62 175.89	81205 560		50017.22 222.49	102716 708		1.26	16.5			
3	0.787 20.00	0.791 20.09	0.4869 314.1593	1.673 2.489		39165.55 174.22	80431 555		51587.94 229.47	105941 731		1.32	19.5			

Cautions:

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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	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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