



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 69

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

Job No : 17/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) Mirpur.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/317 of 2024-2025/13/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x Composite SMBK Complex.

Frog Mark : SCRM B-420 DWR.

Dt. of Sample Collection : 20 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 10.05	0.1217 78.5398	0.419 0.623	0.419 0.623	14559.03 64.76	119594 825	121431 837	18584.17 82.67	152658 1053	154812 1068	1.28	16		18	
2	0.394 10.00	0.396 10.05	0.1217 78.5398	0.419 0.623		14790.36 65.79	121494 838		19518.74 86.82	160335 1106		1.32	16.5			
3	0.394 10.00	0.396 10.05	0.1217 78.5398	0.419 0.623		14998.56 66.72	123205 850		18436.12 82.01	151442 1044		1.23	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.

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 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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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 : 17/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) Mirpur.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/317 of 2024-2025/13/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x Composite SMBK Complex.

Frog Mark : SCRM B-420 DWR.

Dt. of Sample Collection: 20 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	0.483 12.27	0.175 113.097	0.624 0.928	0.624 0.928	18491.63 82.25	105485 727	105340 726	25121.54 111.75	143305 988	142135 980	1.36	17.5		21	
2	0.472 12.00	0.483 12.27	0.175 113.097	0.624 0.928		18436.12 82.01	105168 725		24825.44 110.43	141616 977		1.35	22.5			
3	0.472 12.00	0.483 12.27	0.175 113.097	0.624 0.928		18470.81 82.16	105366 727		24802.30 110.33	141484 976		1.34	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.
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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 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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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 : 17/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Army) Mirpur.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/317 of 2024-2025/13/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x Composite SMBK Complex.

Frog Mark : SCRM B-420 DWR.

Dt. of Sample Collection: 20 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 (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	0.636 16.14	0.312 201.062	1.080 1.607	1.080 1.607	27821.15 123.75	89271 616	86070 594	36880.02 164.05	118339 816	120677 832	1.33	26		23	
2	0.630 16.00	0.636 16.14	0.312 201.062	1.080 1.607		26359.15 117.25	84580 583		37941.82 168.77	121746 840		1.44	21.5			
3	0.630 16.00	0.636 16.14	0.312 201.062	1.080 1.607		26289.75 116.94	84358 582		38004.28 169.05	121947 841		1.45	22.5			

Cautions:

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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 : 17/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Army) Mirpur.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA/317 of 2024-2025/13/E-6 Dt.20 July'2025.

Sample Grade : 60

Project Name : Construction of 1 x Composite SMBK Complex.

Frog Mark : SCRM B-420 DWR.

Dt. of Sample Collection: 20 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	0.790 20.07	0.4869 314.1593	1.669 2.484	1.669 2.484	37432.89 166.51	76872 530	76027 524	52959.73 235.58	108759 750	108432 748	1.41	23.5		25	
2	0.787 20.00	0.790 20.07	0.4869 314.1593	1.669 2.484		37326.48 166.04	76654 529		52959.73 235.58	108759 750		1.42	23			
3	0.787 20.00	0.790 20.07	0.4869 314.1593	1.669 2.484		36304.00 161.49	74554 514		52483.19 233.46	107780 743		1.45	27.5			

Cautions:

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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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