



MATERIALS TESTING LABORATORY
MILITARY ENGINEER SERVICES(MES)

Page no: 329

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

Job No : 49/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/311 of 2024-2025/17/E-6 Dt.24 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x SM BK with CH/DH & Recreation room.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection : 28 Aug'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	0.399 10.13	0.1217 78.5398	0.426 0.633	0.426 0.633	12608.93 56.09	103575 714	105836 730	15951.64 70.96	131034 904	135518 935	1.27	20.5		19	
2	0.394 10.00	0.399 10.13	0.1217 78.5398	0.426 0.633		13076.21 58.17	107414 741		16590.11 73.80	136278 940		1.27	17.5			
3	0.394 10.00	0.399 10.13	0.1217 78.5398	0.426 0.633		12967.49 57.68	106521 735		16950.98 75.40	139243 960		1.31	19			

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 N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	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 : 49/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CEA/311 of 2024-2025/17/E-6 Dt.24 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x SM BK with CH/DH & Recreation room.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 28 Aug'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	0.476 12.10	0.175 113.097	0.607 0.903	0.607 0.903	17415.95 77.47	99349 685	98781 681	22107.31 98.34	126110 870	125587 866	1.27	14.5		16	
2	0.472 12.00	0.476 12.10	0.175 113.097	0.607 0.903		17605.64 78.31	100431 693		22255.36 99.00	126955 876		1.26	15.5			
3	0.472 12.00	0.476 12.10	0.175 113.097	0.607 0.903		16927.85 75.30	96564 666		21683.98 96.45	123696 853		1.28	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):

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 : 49/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/311 of 2024-2025/17/E-6 Dt.24 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x SM BK with CH/DH & Recreation room.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 28 Aug'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	26447.06 117.64	84862 585	86852 599	35161.24 156.40	112824 778	113373 782	1.33	18.5		18	
2	0.630 16.00	0.636 16.14	0.312 201.062	1.080 1.607		27983.08 124.47	89791 619		35924.62 159.80	115274 795		1.28	17.5			
3	0.630 16.00	0.636 16.14	0.312 201.062	1.080 1.607		26770.92 119.08	85902 592		34911.40 155.29	112022 773		1.30	19			

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 : 49/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CEA/311 of 2024-2025/17/E-6 Dt.24 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x SM BK with CH/DH & Recreation room.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 28 Aug'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	0.793 20.15	0.4869 314.1593	1.683 2.504	1.683 2.504	39773.95 176.92	81680 563	82307 568	51969.64 231.17	106725 736	106320 733	1.31	18.5		20	
2	0.787 20.00	0.793 20.15	0.4869 314.1593	1.683 2.504		40389.28 179.66	82944 572		51738.31 230.14	106250 733		1.28	21.5			
3	0.787 20.00	0.793 20.15	0.4869 314.1593	1.683 2.504		40074.68 178.26	82298 568		51608.76 229.57	105984 731		1.29	21			

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

Job No : 49/2025-2026 (Steel).

Copy No : 05

Name of Client : GE (Army) Jashore.

Sample Specimen : Length 600mm , Dia 25mm

Ref.ltr.No : CEA/311 of 2024-2025/17/E-6 Dt.24 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x SM BK with CH/DH & Recreation room.

Frog Mark : RSM B-420 DWR.

Dt. of Sample Collection: 28 Aug'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	0.991 25.16	0.7609 490.8739	2.623 3.903	2.623 3.903	57546.99 255.98	75635 522	75694 522	79222.57 352.40	104123 718	102961 710	1.38	21.5		25	
2	0.984 25.00	0.991 25.16	0.7609 490.8739	2.623 3.903		58169.27 258.75	76452 527		77885.48 346.45	102366 706		1.34	25			
3	0.984 25.00	0.991 25.16	0.7609 490.8739	2.623 3.903		57061.20 253.82	74996 517		77906.30 346.54	102393 706		1.37	29.5			

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	Ult.Str	Grade	Y/strength	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)			
					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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