



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 350

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

Job No : 41/2025-2026 (Steel).

Copy No : 01

Name of Client : AGE (Army) Rajendrapur.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CEA/354 of 2022-2023/36/E-6 Dt.13 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x 52 C/D type Officer's Qtr.

Frog Mark : RSM B-420 DWR

Dt. of Sample Collection : 14 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	0.398 10.10	0.1217 78.5398	0.422 0.629	0.422 0.629	14559.03 64.76	119594 825	113285 781	17948.01 79.84	147433 1017	141042 973	1.23	13		15	
2	0.394 10.00	0.398 10.10	0.1217 78.5398	0.422 0.629		13152.55 58.51	108041 745		16590.11 73.80	136278 940		1.26	16.5			
3	0.394 10.00	0.398 10.10	0.1217 78.5398	0.422 0.629		13661.47 60.77	112221 774		16971.80 75.49	139414 961		1.24	14.5			

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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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 : 41/2025-2026 (Steel).
Name of Client : AGE (Army) Rajendrapur.
Ref.ltr.No : CEA/354 of 2022-2023/36/E-6 Dt.13 Aug'2025.
Project Name : Construction of 1 x 52 C/D type Officer's Qtr.
Dt. of Sample Collection: 14 Aug'2025

Copy No : 02
Sample Specimen : Length 600mm , Dia 12mm
Sample Grade : 60
Frog Mark : RSM B-420 DWR

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	16439.74 73.13	93780 647	95531 659	21195.88 94.28	120911 834	122561 845	1.29	17.5		18	
2	0.472 12.00	0.476 12.10	0.175 113.097	0.607 0.903		16800.62 74.73	95839 661		21491.98 95.60	122600 846		1.28	19			
3	0.472 12.00	0.476 12.10	0.175 113.097	0.607 0.903		16999.56 75.62	96973 669		21767.26 96.83	124171 856		1.28	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):

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 : 41/2025-2026 (Steel).

Copy No : 03

Name of Client : AGE (Army) Rajendrapur.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CEA/354 of 2022-2023/36/E-6 Dt.13 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x 52 C/D type Officer's Qtr.

Frog Mark : RSM B-420 DWR

Dt. of Sample Collection: 14 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	0.630 16.00	0.635 16.12	0.312 201.062	1.077 1.602	1.077 1.602	27034.63 120.26	86748 598	85271 588	35223.70 156.68	113024 779	111909 772	1.30	20		20	
2	0.630 16.00	0.635 16.12	0.312 201.062	1.077 1.602		27124.85 120.66	87037 600		35899.18 159.69	115192 794		1.32	18			
3	0.630 16.00	0.635 16.12	0.312 201.062	1.077 1.602		25563.38 113.71	82027 566		33504.92 149.04	107509 741		1.31	22.5			

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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Page no: 353

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

Job No : 41/2025-2026 (Steel). Copy No : 04
Name of Client : AGE (Army) Rajendrapur. Sample Specimen : Length 600mm , Dia 20mm
Ref.ltr.No : CEA/354 of 2022-2023/36/E-6 Dt.13 Aug'2025. Sample Grade : 60
Project Name : Construction of 1 x 52 C/D type Officer's Qtr. Frog Mark : RSM B-420 DWR
Dt. of Sample Collection: 14 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	0.798 20.26	0.4869 314.1593	1.700 2.530	1.700 2.530	37347.30 166.13	76697 529	79702 550	49422.70 219.84	101495 700	102798 709	1.32	16		18	
2	0.787 20.00	0.798 20.26	0.4869 314.1593	1.700 2.530		39542.62 175.89	81205 560		50815.30 226.04	104355 720		1.29	18.5			
3	0.787 20.00	0.798 20.26	0.4869 314.1593	1.700 2.530		39542.62 175.89	81205 560		49933.94 222.12	102545 707		1.26	18.5			

Cautions:

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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 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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Page no: 354

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

Job No : 41/2025-2026 (Steel).

Copy No : 05

Name of Client : AGE (Army) Rajendrapur.

Sample Specimen : Length 600mm , Dia 25mm

Ref.ltr.No : CEA/354 of 2022-2023/36/E-6 Dt.13 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1 x 52 C/D type Officer's Qtr.

Frog Mark : RSM B-420 DWR

Dt. of Sample Collection: 14 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	0.989 25.13	0.7609 490.8739	2.616 3.893	2.616 3.893	58044.35 258.19	76288 526	77621 535	76018.65 338.15	99912 689	102022 704	1.31	22		22	
2	0.984 25.00	0.989 25.13	0.7609 490.8739	2.616 3.893		59901.93 266.46	78730 543		76592.35 340.70	100666 694		1.28	21.5			
3	0.984 25.00	0.989 25.13	0.7609 490.8739	2.616 3.893		59228.76 263.46	77845 537		80261.23 357.02	105488 728		1.36	23.5			

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.
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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	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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