



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 : 84/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CE Air/159 of 2024-2025/14/E-6 Dt.15 Dec'2025.

Sample Grade : 60

Project Name : Construction of Pump house with Water reservoir.

Frog Mark : RSM B-500 DWR.

Dt. of Sample Collection : 15 Dec'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	0.392 9.96	0.1217 78.5398	0.411 0.612	0.411 0.612	13874.30 61.72	113969 786	113330 782	15995.59 71.15	131395 906	130863 903	1.15	18.5		18	
2	0.394 10.00	0.392 9.96	0.1217 78.5398	0.411 0.612		13749.38 61.16	112943 779		15889.18 70.68	130521 900		1.16	16.5			
3	0.394 10.00	0.392 9.96	0.1217 78.5398	0.411 0.612		13765.57 61.23	113076 780		15907.68 70.76	130673 901		1.16	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):

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 N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	ASTM A 615 M		ASTM A 615 M		ASTM A 615 M		ASTM A 615/A 615 M			
				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 : 84/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CE Air/159 of 2024-2025/14/E-6 Dt.15 Dec'2025.

Sample Grade : 60

Project Name : Construction of Pump house with Water reservoir.

Frog Mark : RSM B-500 DWR.

Dt. of Sample Collection: 15 Dec'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	0.473 12.00	0.175 113.097	0.597 0.888	0.597 0.888	17714.37 78.80	101051 697	106479 734	20233.55 90.00	115422 796	123357 851	1.14	16		17	
2	0.472 12.00	0.473 12.00	0.175 113.097	0.597 0.888		19021.38 84.61	108507 748		22234.55 98.90	126836 875		1.17	17.5			
3	0.472 12.00	0.473 12.00	0.175 113.097	0.597 0.888		19261.96 85.68	109879 758		22405.73 99.67	127813 881		1.16	18.5			

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

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	Ult.Str	Elongation	Grade	Y/strength	Ult.Str	Grade	Y/strength	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)			
	N/mm2 or Mpa	N/mm2 or Mpa	%		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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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 : 84/2025-2026 (Steel).

Copy No : 03

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CE Air/159 of 2024-2025/14/E-6 Dt.15 Dec'2025.

Sample Grade : 60

Project Name : Construction of Pump house with Water reservoir.

Frog Mark : RSM B-500 DWR.

Dt. of Sample Collection: 15 Dec'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	0.630 16.00	0.312 201.062	1.061 1.579	1.061 1.579	29849.91 132.78	95781 661	95551 659	35054.83 155.93	112483 776	112552 776	1.17	19		18	
2	0.630 16.00	0.630 16.00	0.312 201.062	1.061 1.579		29500.60 131.22	94660 653		34906.77 155.27	112008 772		1.18	16			
3	0.630 16.00	0.630 16.00	0.312 201.062	1.061 1.579		29984.08 133.38	96212 664		35267.65 156.88	113166 780		1.18	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)										
				ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M				
Grade	Y/strength	Ult.Str	Elongation	Grade	Y/strength	Ult.Str	Grade	Y/strength	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)				
	N/mm2 or Mpa	N/mm2 or Mpa	%		psi (kg/cm2)	psi (kg/cm2)		Mpa (kg/cm2)	Mpa (kg/cm2)	Mpa (kg/cm2)	10 mm	13,16,19 mm		22,25 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 : 84/2025-2026 (Steel).

Copy No : 04

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 20mm

Ref.ltr.No : CE Air/159 of 2024-2025/14/E-6 Dt.15 Dec'2025.

Sample Grade : 60

Project Name : Construction of Pump house with Water reservoir.

Frog Mark : RSM B-500 DWR.

Dt. of Sample Collection: 15 Dec'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	0.778 19.75	0.4869 314.1593	1.617 2.406	1.617 2.406	44835.44 199.44	92074 635	91449 631	51865.54 230.71	106511 735	106627 735	1.16	16.5		18	
2	0.787 20.00	0.778 19.75	0.4869 314.1593	1.617 2.406		44386.66 197.44	91153 629		51779.95 230.33	106336 733		1.17	18.5			
3	0.787 20.00	0.778 19.75	0.4869 314.1593	1.617 2.406		44370.46 197.37	91120 628		52120.00 231.84	107034 738		1.17	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):

1. Diameter & Unit weight of 20 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 Requirements(ASTM A615/A616M-96a)									
Grade	Y/strength N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %	ASTM A 615 M		ASTM A 615 M		ASTM A 615 M		ASTM A 615/A 615 M			
				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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