



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 79

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

Job No : 19/2025-2026 (Steel).

Copy No : 01

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : 6412/09/E-6 Dt.24 July'2025.

Sample Grade : 60

Project Name : Construction of Airmen BK.

Frog Mark : AKS B-420 DWR.

Dt. of Sample Collection : 24 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	0.390 9.91	0.1217 78.5398	0.407 0.606	0.407 0.606	15870.67 70.60	130369 899	130014 897	18669.76 83.05	153361 1058	150042 1035	1.18	17	17		
2	0.394 10.00	0.390 9.91	0.1217 78.5398	0.407 0.606		16127.45 71.74	132478 914		18838.63 83.80	154749 1067		1.17	16.5			
3	0.394 10.00	0.390 9.91	0.1217 78.5398	0.407 0.606		15484.35 68.88	127195 877		17288.72 76.90	142017 979		1.12	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.

Oservation 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/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 (%)			
										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

Laboratory Technician

Test Performed By

Vetted By



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 80

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

Job No : 19/2025-2026 (Steel).

Copy No : 02

Name of Client : GE (Air) Kurmitola.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : 6412/09/E-6 Dt.24 July'2025.

Sample Grade : 60

Project Name : Construction of Airmen BK.

Frog Mark : AKS B-420 DWR.

Dt. of Sample Collection: 24 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	0.628	0.312	1.056	1.056	32267.31	103538	103251	39746.19	127536	127625	1.23	22.5		22	
	16.00	15.96	201.062	1.571		143.53	714		176.80	880						
2	0.630	0.628	0.312	1.056	1.571	32075.30	102922	712	39723.05	127462	880	1.24	20.5			
	16.00	15.96	201.062	1.571		142.68	710		176.70	879						
3	0.630	0.628	0.312	1.056	1.571	32190.97	103293	712	39852.60	127878	882	1.24	21.5			
	16.00	15.96	201.062	1.571		143.19	712		177.27	882						

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.

Oservation on Specimen(if any):

1. Diameter & Unit weight of 16 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/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 (%)			
									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

Laboratory Technician

Test Performed By

Vetted By



MATERIALS TESTING LABORATORY

Page no: 81



MILITARY ENGINEER SERVICES(MES)

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

Job No

: 19/2025-2026 (Steel).

Copy No

: 03

Name of Client : GE (Air) Kurmitola.
 Ref.Itr.No : 6412/09/E-6 Dt.24 July'2025.
 Project Name : Construction of Airmen BK.
 Dt. of Sample Collection: 24 July'2025

Sample Specimen : Length 600mm , Dia 20mm
 Sample Grade : 60
 Frog Mark : AKS 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	0.787 20.00	0.782 19.86	0.4869 314.1593	1.635 2.433	1.635 2.433	46452.43 206.63	95395 658	93772 647	57701.98 256.67	118497 817	117291 809	1.24	22.5	25		
2	0.787 20.00	0.782 19.86	0.4869 314.1593	1.635 2.433		45305.04 201.53	93039 642		57785.26 257.04	118668 818		1.28	26			
3	0.787 20.00	0.782 19.86	0.4869 314.1593	1.635 2.433		45228.70 201.19	92882 641		55855.97 248.46	114706 791		1.23	25.5			

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 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 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	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

Laboratory Technician

Test Performed By

Vetted By