



## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 178

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

Job No : 71/2024-2025 (Steel).	Copy No : 01
Name of Client : AGE (Air) Air HQ (U).	Sample Specimen : Length 600mm , Dia 10mm
Ref.Itr.No : CE Air/206 of 2022-2023/28/E-6 Dt.06 Mar'2025.	Sample Grade : 60
Project Name : Construction of Boundary Wall, Guard Room & Gate.	Frog Mark : PURBACHAL B-420 DWR.
Dt. of Sample Collection : 09 Mar'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	0.399	0.1217	0.426	0.426	14927.47	122621	117967	16356.80	134362	134437	1.10	12.5			
	10.00	10.14	78.5398	0.634		66.40	846		72.76	927						
2	0.394	0.399	0.1217	0.426	0.634	14437.29	118594	814	16496.53	135510	927	1.14	13.5		13	
	10.00	10.14	78.5398	0.634		64.22	818		73.38	935						
3	0.394	0.399	0.1217	0.426	0.634	13718.04	112686	777	16244.56	133440	920	1.18	12.5			
	10.00	10.14	78.5398	0.634		61.02	777		72.26	920						

**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):

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	Ult.Str	Grade	Y/strength	Ult.Str	Minimum Elongation in 8"(203.2 mm) GL (%)			
					psi (kg/cm2)	psi (kg/cm2)		Mpa (kg/cm2)	psi (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)

Page no: 179

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

Job No : 71/2024-2025 (Steel).	Copy No : 02
Name of Client : AGE (Air) Air HQ (U).	Sample Specimen : Length 600mm , Dia 12mm
Ref.ltr.No : CE Air/206 of 2022-2023/28/E-6 Dt.06 Mar'2025.	Sample Grade : 60
Project Name : Construction of Boundary Wall, Guard Room & Gate.	Frog Mark : PURBACHAL B-420 DWR.
Dt. of Sample Collection: 09 Mar'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	0.472 12.00	0.473 12.03	0.175 113.097	0.599 0.892	0.599 0.892	17841.10 79.36	101774 702	101804 702	20992.95 93.38	119754 826	124384 858	1.18	14	14		
	2	0.472 12.00	0.473 12.03	0.175 113.097		0.599 0.892	16989.00 75.57		96913 668	22612.40 100.58		128992 890	1.33			
3		0.472 12.00	0.473 12.03	0.175 113.097		0.599 0.892	18709.24 83.22		106726 736	21808.40 97.01		124405 858	1.17			

**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.

Oservation on Specimen(if any):

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	

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## MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 180

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

Job No : 71/2024-2025 (Steel).

Copy No : 03

Name of Client : AGE (Air) Air HQ (U).

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CE Air/206 of 2022-2023/28/E-6 Dt.06 Mar'2025.

Sample Grade : 60

Project Name : Construction of Boundary Wall, Guard Room & Gate.

Frog Mark : PURBACHAL B-420 DWR.

Dt. of Sample Collection: 09 Mar'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 16.13	0.312 201.062	1.078 1.604	1.078 1.604	27459.29 122.14	88110 608	88299 609	33499.57 149.01	107492 741	109033 752	1.22	20.5	17		
2	0.630 16.00	0.635 16.13	0.312 201.062	1.078 1.604		26653.00 118.56	85523 590		33048.32 147.01	106044 731		1.24	14			
3	0.630 16.00	0.635 16.13	0.312 201.062	1.078 1.604		28441.95 126.52	91263 629		35391.60 157.43	113563 783		1.24	17.5			

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Oservation on Specimen(if any):

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

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