



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 : 70/2024-2025 (Steel).

Copy No : 01

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

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CE Air/205 of 2022-2023/29/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 10.00	0.398 10.11	0.1217 78.5398	0.424 0.630	0.424 0.630	14927.47 66.40	122621 846	120288 830	16253.73 72.30	133515 921	134732 929	1.09	10.5		13	
2	0.394 10.00	0.398 10.11	0.1217 78.5398	0.424 0.630		14755.68 65.64	121210 836		16812.63 74.79	138106 952		1.14	15.5			
3	0.394 10.00	0.398 10.11	0.1217 78.5398	0.424 0.630		14247.17 63.37	117032 807		16139.20 71.79	132574 914		1.13	12.5			

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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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 : 70/2024-2025 (Steel).

Copy No : 02

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

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CE Air/205 of 2022-2023/29/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	0.472 12.00	0.473 12.01	0.175 113.097	0.597 0.889	0.597 0.889	18821.48 83.72	107366 740	104723 722	20489.02 91.14	116879 806	119836 826	1.09	11		13	
2	0.472 12.00	0.473 12.01	0.175 113.097	0.597 0.889		18496.21 82.27	105511 728		21561.02 95.91	122994 848		1.17	15			
3	0.472 12.00	0.473 12.01	0.175 113.097	0.597 0.889		17756.35 78.98	101291 699		20972.34 93.29	119636 825		1.18	14			

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				ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M			
				Y/strength	Ult.Str		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)	10 mm	13,16,19 mm	22,25 mm	29,32,36 mm
300	300	330	16	40000(2810)	70000(4910)		300(3050)	500(5090)		11	12	..	..
400/400w	400	440	14	60000(4210)	90000(6310)		420(4275)	620(6295)		9	9	8	7
500/500w	500	550	14	75000(5255)	100000(7015)		520(5275)	690(7010)		..	7	7	6

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Page no: 177

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

Job No : 70/2024-2025 (Steel).

Copy No : 03

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

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CE Air/205 of 2022-2023/29/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	0.630 16.01	0.312 201.062	1.062 1.581	1.062 1.581	27676.89 123.11	88809 612	90443 624	33772.15 150.23	108367 747	111067 766	1.22	17.5		18	
2	0.630 16.00	0.630 16.01	0.312 201.062	1.062 1.581		28439.66 126.51	91256 629		34825.82 154.91	111748 771		1.22	16.5			
3	0.630 16.00	0.630 16.01	0.312 201.062	1.062 1.581		28441.95 126.52	91263 629		35242.71 156.77	113085 780		1.24	20.5			

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.

Obsvervation on Specimen(if any):

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E)				Minimum Standard Requirments(ASTM A615/A616M-96a)									
Grade				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 (%)			
Y/strength N/mm2 or Mpa	Ult.Str N/mm2 or Mpa	Elongation %								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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