



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 : 64/2024-2025 (Steel).	Copy No : 01
Name of Client : AGE (Air) Air HQ (U).	Sample Specimen : Length 600mm , Dia 10mm
Ref.ltr.No : CE Air/212 of 2022-2023/31/E-6 Dt.06 Mar'2025.	Sample Grade : 60
Project Name : Construction of Boundary Wall.	Frog Mark : RSM 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	0.400 10.15	0.1217 78.5398	0.427 0.635	0.427 0.635	15078.65 67.07	123863 854	113200 781	17085.21 76.00	140345 968	131307 906	1.13	17		17	
2	0.394 10.00	0.400 10.15	0.1217 78.5398	0.427 0.635		13170.59 58.59	108189 746		15529.90 69.08	127569 880		1.18	15			
3	0.394 10.00	0.400 10.15	0.1217 78.5398	0.427 0.635		13092.71 58.24	107549 742		15339.78 68.23	126008 869		1.17	19.5			

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):

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 (%)			
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

Laboratory Technician

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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 : 64/2024-2025 (Steel).

Copy No : 02

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

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CE Air/212 of 2022-2023/31/E-6 Dt.06 Mar'2025.

Sample Grade : 60

Project Name : Construction of Boundary Wall.

Frog Mark : RSM 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	0.471 11.97	0.175 113.097	0.594 0.884	0.594 0.884	16430.10 73.08	93725 646	95846 661	21414.42 95.26	122158 842	116962 807	1.30	19.5		17	
2	0.472 12.00	0.471 11.97	0.175 113.097	0.594 0.884		16989.00 75.57	96913 668		20383.66 90.67	116278 802		1.20	16.5			
3	0.472 12.00	0.471 11.97	0.175 113.097	0.594 0.884		16986.71 75.56	96900 668		19712.51 87.69	112449 776		1.16	15			

Cautions:

1. Samples as supplied to the laboratory have been tested. The laboratory authority does not bear any responsibility as to the representative character of the samples to be tested.
2. It is recommended that samples are sent in a secured 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.

Observation on Specimen(if any):

1. Diameter & Unit weight of 12 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/mm ² or Mpa	Ult.Str N/mm ² or Mpa	Elongation %	ASTM A 615 M			ASTM A 615 M			ASTM A 615/A 615 M			
				Grade	Y/strength psi (kg/cm ²)	Ult.Str psi (kg/cm ²)	Grade	Y/strength Mpa (kg/cm ²)	Ult.Str Mpa (kg/cm ²)	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 : 64/2024-2025 (Steel).

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

Ref.ltr.No : CE Air/212 of 2022-2023/31/E-6 Dt.06 Mar'2025.

Project Name : Construction of Boundary Wall.

Dt. of Sample Collection: 09 Mar'2025

Copy No : 03

Sample Specimen : Length 600mm , Dia 16mm

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 (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	0.630 16.00	0.631 16.02	0.312 201.062	1.063 1.582	1.063 1.582	26856.86 119.46	86177 594	86400 596	34990.74 155.65	112277 774	111018 766	1.30	19.5		20	
2	0.630 16.00	0.631 16.02	0.312 201.062	1.063 1.582		27509.68 122.37	88272 609		34844.15 154.99	111807 771		1.27	20			
3	0.630 16.00	0.631 16.02	0.312 201.062	1.063 1.582		26412.49 117.49	84751 584		33959.98 151.06	108970 752		1.29	21			

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)									
				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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