



MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 105

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

Job No : 50/2024-2025 (Steel).

Copy No : 01

Name of Client : AGE (Air) Shamshernagar.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : EinC/166 of 2023-2024/26/E-6 Dt.08 Jan'2025

Sample Grade : 72

Project Name : Construction of 1 x Office cum Laboratory Building.

Frog Mark : SAS B-500 DWR.

Dt. of Sample Collection : 09 Jan'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	0.407 10.34	0.1217 78.5398	0.443 0.659	0.443 0.659	16989.00 75.57	139555 962	139549 962	20131.69 89.55	165370 1140	165082 1138	1.18	14.5		15	
2	0.394 10.00	0.407 10.34	0.1217 78.5398	0.443 0.659		16986.71 75.56	139536 962		19900.34 88.52	163470 1127		1.17	15.5			
3	0.394 10.00	0.407 10.34	0.1217 78.5398	0.443 0.659		16989.00 75.57	139555 962		20257.67 90.11	166405 1148		1.19	14.5			

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 psi (kg/cm2)	Ult.Str psi (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 : 50/2024-2025 (Steel).

Copy No : 02

Name of Client : AGE (Air) Shamshernagar.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : EinC/166 of 2023-2024/26/E-6 Dt.08 Jan'2025

Sample Grade : 72

Project Name : Construction of 1 x Office cum Laboratory Building.

Frog Mark : SAS B-500 DWR.

Dt. of Sample Collection: 09 Jan'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	0.489 12.42	0.175 113.097	0.639 0.951	0.639 0.951	21918.35 97.50	125033 862	122946 848	26458.30 117.69	150930 1041	151449 1044	1.21	17.5		18	
2	0.472 12.00	0.489 12.42	0.175 113.097	0.639 0.951		21856.51 97.22	124680 860		26795.02 119.19	152851 1054		1.23	18.5			
3	0.472 12.00	0.489 12.42	0.175 113.097	0.639 0.951		20883.01 92.89	119126 822		26394.16 117.41	150565 1038		1.26	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 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):

Minimum Standard Requirements (BDS/ISO 6935-2:1991(E))				Minimum Standard Requirements (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/mm ² or Mpa	N/mm ² or Mpa	%	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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MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 107

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

Job No : 50/2024-2025 (Steel).

Copy No : 03

Name of Client : AGE (Air) Shamsheernagar.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : EinC/166 of 2023-2024/26/E-6 Dt.08 Jan'2025

Sample Grade : 72

Project Name : Construction of 1 x Office cum Laboratory Building.

Frog Mark : SAS B-500 DWR.

Dt. of Sample Collection: 09 Jan'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	0.644 16.35	0.312 201.062	1.108 1.649	1.108 1.649	30274.42 134.67	97143 670	100573 694	42641.31 189.68	136826 944	138269 954	1.41	13.5		15	
2	0.630 16.00	0.644 16.35	0.312 201.062	1.108 1.649		29587.24 131.61	94938 655		42471.81 188.92	136282 940		1.44	16.5			
3	0.630 16.00	0.644 16.35	0.312 201.062	1.108 1.649		34168.42 151.99	109638 756		44159.97 196.43	141699 977		1.29	14.5			

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.
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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.

Observation on Specimen(if any):

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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MATERIALS TESTING LABORATORY MILITARY ENGINEER SERVICES(MES)

Page no: 108

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

Job No : 50/2024-2025 (Steel).	Copy No : 04
Name of Client : AGE (Air) Shamshernagar.	Sample Specimen : Length 600mm , Dia 20mm
Ref.ltr.No : EinC/166 of 2023-2024/26/E-6 Dt.08 Jan'2025	Sample Grade : 72
Project Name : Construction of 1 x Office cum Laboratory Building.	Frog Mark : SAS B-500 DWR.
Dt. of Sample Collection: 09 Jan'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	0.802 20.37	0.4869 314.1593	1.719 2.559	1.719 2.559	47538.59 211.46	97626 673	97613 673	65611.34 291.85	134740 929	133318 919	1.38	16.5		16	
2	0.787 20.00	0.802 20.37	0.4869 314.1593	1.719 2.559		47529.43 211.42	97607 673		63659.76 283.17	130732 902		1.34	15			
3	0.787 20.00	0.802 20.37	0.4869 314.1593	1.719 2.559		47529.43 211.42	97607 673		65485.36 291.29	134481 927		1.38	17.5			

Cautions:

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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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