



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 : 43/2025-2026 (Steel).

Copy No : 01

Name of Client : AGE (Air) Shamshernagar.

Sample Specimen : Length 600mm , Dia 10mm

Ref.ltr.No : CA(Air)/206 of 2024-2025/05/E-6 Dt.03 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1x Office Bldg.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection : 17 Aug'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	0.397 10.10	0.1217 78.5398	0.422 0.628	0.422 0.628	14683.95 65.32	120620 832	121228 836	17522.36 77.94	143936 993	144582 997	1.19	17.5		17	
2	0.394 10.00	0.397 10.10	0.1217 78.5398	0.422 0.628		15123.48 67.27	124231 857		17841.60 79.36	146559 1011		1.18	16.5			
3	0.394 10.00	0.397 10.10	0.1217 78.5398	0.422 0.628		14466.50 64.35	118834 820		17439.08 77.57	143252 988		1.21	16			

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 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	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 : 43/2025-2026 (Steel).

Copy No : 02

Name of Client : AGE (Air) Shamshernagar.

Sample Specimen : Length 600mm , Dia 12mm

Ref.ltr.No : CA(Air)/206 of 2024-2025/05/E-6 Dt.03 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1x Office Blding.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 17 Aug'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	0.478 12.15	0.175 113.097	0.612 0.911	0.612 0.911	19028.32 84.64	108546 749	110020 759	23127.48 102.88	131930 910	132612 915	1.22	16.5		16	
2	0.472 12.00	0.478 12.15	0.175 113.097	0.612 0.911		19525.68 86.85	111384 768		23361.12 103.91	133263 919		1.20	14.5			
3	0.472 12.00	0.478 12.15	0.175 113.097	0.612 0.911		19305.91 85.88	110130 760		23252.40 103.43	132643 915		1.20	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.

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

Job No : 43/2025-2026 (Steel).

Copy No : 03

Name of Client : AGE (Air) Shamsheernagar.

Sample Specimen : Length 600mm , Dia 16mm

Ref.ltr.No : CA(Air)/206 of 2024-2025/05/E-6 Dt.03 Aug'2025.

Sample Grade : 60

Project Name : Construction of 1x Office Bulding.

Frog Mark : Baizid B-420 DWR

Dt. of Sample Collection: 17 Aug'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	0.636 16.15	0.312 201.062	1.080 1.607	1.080 1.607	30393.54 135.20	97526 673	94064 649	37921.00 168.68	121679 839	115662 798	1.25	17		16	
2	0.630 16.00	0.636 16.15	0.312 201.062	1.080 1.607		28207.47 125.47	90511 624		33356.87 148.38	107034 738		1.18	14.5			
3	0.630 16.00	0.636 16.15	0.312 201.062	1.080 1.607		29343.30 130.52	94156 649		36859.20 163.96	118272 816		1.26	16			

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.

Obsvervation 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)

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

Job No : 43/2025-2026 (Steel). Copy No : 04
Name of Client : AGE (Air) Shamshernagar. Sample Specimen : Length 600mm , Dia 20mm
Ref.ltr.No : CA(Air)/206 of 2024-2025/05/E-6 Dt.03 Aug'2025. Sample Grade : 60
Project Name : Construction of 1x Office Bulding. Frog Mark : Baizid B-420 DWR
Dt. of Sample Collection: 17 Aug'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	0.791 20.10	0.4869 314.1593	1.674 2.491	1.674 2.491	45557.18 202.65	93557 645	92397 637	57743.62 256.86	118583 818	114952 793	1.27	21.5		20	
2	0.787 20.00	0.791 20.10	0.4869 314.1593	1.674 2.491		44497.70 197.93	91381 630		53223.44 236.75	109300 754		1.20	19.5			
3	0.787 20.00	0.791 20.10	0.4869 314.1593	1.674 2.491		44923.34 199.83	92255 636		56959.42 253.37	116972 807		1.27	20			

Cautions:

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

Job No : 43/2025-2026 (Steel). Copy No : 05
Name of Client : AGE (Air) Shamshernagar. Sample Specimen : Length 600mm , Dia 25mm
Ref.ltr.No : CA(Air)/206 of 2024-2025/05/E-6 Dt.03 Aug'2025. Sample Grade : 60
Project Name : Construction of 1x Office Bulding. Frog Mark : Baizid B-420 DWR
Dt. of Sample Collection: 17 Aug'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	0.984 25.00	0.991 25.18	0.7609 490.8739	2.626 3.908	2.626 3.908	58280.31 259.24	76598 528	76595 528	75979.33 337.97	99860 689	100116 690	1.30	24.5		24	
2	0.984 25.00	0.991 25.18	0.7609 490.8739	2.626 3.908		58967.36 262.30	77501 534		76714.95 341.24	100827 695		1.30	22.5			
3	0.984 25.00	0.991 25.18	0.7609 490.8739	2.626 3.908		57586.32 256.16	75686 522		75826.65 337.29	99660 687		1.32	23.5			

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.

Obsvervation 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 (%)			
										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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