



MATERIAL TESTING LABORATORY

MILITARY ENGINEER SERVICES (MES)

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

Job No	: 266/2018-2019 (Steel).	Copy No.	: 01
Name of Client	: GE(Army) Comilla.	Sample Specimen	: Length 600 mm Dia 10mm
Ref Itr No	: CEA/ 553 of 2017-2018/23/E-4 Dt. 02 April 2019.	Sample Grade	: 60
Project Name	: CEA/ 553 of 2017-2018.	Frog Mark	: BSRM 500 W
Date of Collection	: Wednesday, 03 April, 2019		

Sample No	Nominal Dia	Actual Dia	Area Under Test	Actual Weight	Average Actual Unit Weight	Yield or Proof Load	Yield or Proof Strength	Average Yield or Proof Strength	Ultimate Load	Ultimate Strength	Average Ultimate Strength	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	0.394 10	0.391 9.938	0.1217 78.5398	0.409 0.609	0.409 0.609	10651.5 47.38	87496 603	86099 594	12384.78 55.09	101734 701	99740 688	16.5		16	
2	0.394 10	0.391 9.938	0.1217 78.5398	0.409 0.609		10372.73 46.14	85206 587		11998.11 53.37	98558 679		14			
3	0.394 10	0.391 9.938	0.1217 78.5398	0.409 0.609		10419.94 46.35	85594 590		12043.07 53.57	98927 682		17			

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 the samples are sent in a secure and sealed cover/packet/container under signature of the competent authority.
3. In order to avoid fraudulent fabrication of the test results, it is recommended that all test reports should be collected by duly authorized person and not by the contractor/supplier.

Observation 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 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/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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No signature is required

Note : [1 Mpa = 145 Psi, 1 kg/cm2 = 14.223 psi]

Laboratory Technician

Test Performed By

Vetted By