



# MATERIAL TESTING LABORATORY

## MILITARY ENGINEER SERVICES (MES)

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

Job No : 173/19-20(Steel).  
 Name of Client : AGE (Army) Momenshahi.  
 Ref Itr No : CEA/01 of 2019-2020/04/E-6 Dt.24 September'2019.  
 Project Name : CEA/01 of 2019-2020.  
 Date of Collection : Wednesday, 25 September, 2019

Copy No. : 03  
 Sample Specimen : Length 600 mm Dia 16mm  
 Sample Grade : 72  
 Frog Mark : AKS TMT 500W

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 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	0.63 16	0.623 15.82	0.3116 201.0619	1.037 1.543	1.037 1.543	25426.01 113.1	81586 562	82050 566	30812.46 137.06	98870 682	99161 684	20		20	
2	0.63 16	0.623 15.82	0.3116 201.0619	1.037 1.543		25729.5 114.45	82560 569		30996.8 137.88	99462 686		20			
3	0.63 16	0.623 15.82	0.3116 201.0619	1.037 1.543		25556.4 113.68	82005 565		30900.13 137.45	99151 684		20			

#### 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 16 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 (%)			
300	300	330	16	40	40000(2810)	70000(4910)	300	300(3050)	500(5090)	10	13,16,19 mm	22,25	29,32,36
400/400w	400	440	14	60	60000(4210)	90000(6310)	420	420(4275)	620(6295)	11	12	..	..
500/500w	500	550	14	75	75000(5255)	100000(7015)	520	520(5275)	690(7010)	9	9	8	7
										7	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