



Client: Mr. Md. Golam Mowla  
 QC Manager  
 Shahriar Steel Mills Limited  
 Konapara, Jatrabari  
 Dhaka 1362

Client's Reference: Nil; Date 01/10/2019  
 BRTC Reference: 1101-96810/MME/2019-20; Date 01/10/2019  
 Sample Condition: Not Sealed

Date: 06 October 2019  
 MME No: 0320(08)/2019-20

TEST OF DEFORMED M.S. REBAR (ASTM A615M-16)

Frog Mark/ Description	Sample No.	Bar	Actual Dia	Unit Weight	Average Unit Weight	Yield Load	Yield Strength	Average Yield Strength	Tensile Load	Tensile Strength	Average Tensile Strength	TS/YS Ratio	Elongation	Average	Bend Test (Separate Samples)
		Designation / Nominal Dia											mm	kg/m	
SSRMB RB 400 12	1	12	12.06	0.897	0.895	48.37	428	423	79.99	707	703	1.65	13	15	Satisfactory
	2	12	12.06	0.895		47.39	419	(61500)	79.80	705	(102000)	1.68	16		Satisfactory
	3	12	12.03	0.893		47.88	423	(61500)	78.94	698	(102000)	1.65	15		Satisfactory

\* TS/YS ratio is not required as per ASTM A615M.  
 \* Strength values are calculated based on nominal area.

Weight Requirements for Steel Rebar (As Per ASTM A615/A615M—16 Table A1.1)

Bar Designation Number/Nominal Dia., mm	10	12	16	20	25	28	32	36	40	50	60
Nominal Weight, kg/m	0.617	0.888	1.578	2.466	3.853	4.834	6.313	7.990	9.865	15.410	22.200

\* Measured unit weight shall not be less than 94% of the nominal weight.

Minimum Tensile Requirements for Steel Rebar (As Per ASTM A615/A615M—16 Table A1.2)

Grade	ASTM A615			ASTM A615M			Minimum Elongation in 8 in. (200 mm) Gauge Length, per cent											
	Yield Strength	Tensile Strength	Grade	Yield Strength	Tensile Strength	Grade	Bar Designation Number											
psi (MPa)	psi (MPa)	MPa (psi)	MPa (psi)	MPa (psi)	MPa (psi)	ASTM A615 (A615M)	10	12	16	20	25	28	32	36	40	50	60	
40	40,000 (280)	60,000 (420)	280	280 (40,000)	420 (60,000)	40 (280)	11	12	12	12	12	11	12	12	12	12	12	
60	60,000 (420)	90,000 (620)	420	420 (60,000)	620 (90,000)	60 (420)	9	9	9	9	8	9	9	9	9	9	9	
75	75,000 (520)	100,000 (690)	520	520 (75,000)	690 (100,000)	75 (520)	7	7	7	7	7	7	7	7	7	7	7	
80	80,000 (550)	105,000 (725)	550	550 (80,000)	725 (105,000)	80 (550)	7	7	7	7	7	7	7	7	7	7	7	
100	100,000 (690)	115,000 (790)	690	690 (100,000)	790 (115,000)	100 (690)	7	7	7	7	7	7	7	7	7	6	6	



m29wbkuptw

Dr. Ahmed Sharif  
 Professor and Head  
 6.10.19

Please note: The client supplied the sample(s) and the result given herewith corresponds to the sample(s) tested only. Department of MME, BUET takes no responsibility regarding the misidentification, if any, of the sample(s).