



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(09)/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 (GL = 200 mm)	Average Elongation	Bend Test (Separate Samples)	Remark
		Designation / Nominal Dia														
SSRM RB 400 16	1	16	16.02	1.583	1.584	82.51	410	412 (59500)	130.23	647	649 (94000)	1.58	15	15	Satisfactory	
	2	16	16.02	1.585		82.88	412		130.85	651		1.58	18		Satisfactory	
	3	16	16.02	1.584		83.25	414		130.60	649		1.57	13		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)		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	-	-	-	-			
60	60,000 (420)	90,000 (620)	420	420 (60,000)	620 (90,000)	60 (420)	9	9	9	8	7	7	7			
75	75,000 (520)	100,000 (690)	520	520 (75,000)	690 (100,000)	75 (520)	7	7	7	7	6	6	6			
80	80,000 (550)	105,000 (725)	550	550 (80,000)	725 (105,000)	80 (550)	7	7	7	7	6	6	6			
100	100,000 (690)	115,000 (790)	690	690 (100,000)	790 (115,000)	100 (690)	7	7	7	7	6	6	6			



Dr. Ahmed Sharif
 6.10.19
 Dr. Ahmed Sharif
 Professor and Head