

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

Client's Reference: Nil; Date 05/02/2020  
 BRTC Reference: 1102-06955/MME/2019-20; Date 05/02/2020  
 Sample Condition: Not Sealed

Date: 16 February 2020  
 MME No: 0838(03)/2019-20

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

Frog Mark/ Description	Sample No.		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)		Bend Test (Separate Samples)
	Bar Designation /Nominal Dia	mm											kg/m	kg/m	
SSRM RB 400 16	1	16	15.9	1.548	1.553	90.23	449	454	127.55	634	638	1.40	18	18	Satisfactory
	2	16	15.9	1.554		91.60	455	(66000)	128.54	639	(92500)		15		Satisfactory
	3	16	16.0	1.556		92.02	457		128.65	640			19		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 psi (MPa)	Tensile Strength psi (MPa)	Grade	Yield Strength MPa (psi)	Tensile Strength MPa (psi)	Grade	Bar Designation Number								
40	40,000 (280)	60,000 (420)	280	280 (40,000)	420 (60,000)	10	12, 16	20	25	28, 32, 36	40, 50, 60				
60	60,000 (420)	90,000 (620)	420	420 (60,000)	620 (90,000)	11	12	12	-	-	-	7			
75	75,000 (520)	100,000 (690)	520	520 (75,000)	690 (100,000)	9	9	9	8	7	7	6			
80	80,000 (550)	105,000 (725)	550	550 (80,000)	725 (105,000)	7	7	7	7	6	6	6			
100	100,000 (690)	115,000 (790)	690	690 (100,000)	790 (115,000)	7	7	7	7	6	6	6			



*Fahmida*  
 Dr. Fahmida Gulshan  
 Professor and Head  
 16.02.2020  
 6ywkirueix



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).

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