

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

Client's Reference: Nil; Date 04/03/2020  
 BRTC Reference: 1102-09488/MME/2019-20; Date 04/03/2020  
 Sample Condition: Not Sealed

Date: 09 March 2020  
 MME No: 0956(03)/2019-20

TEST OF DEFORMED M.S. REBAR

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	
SSRM RB 400 16	1	16	15.90	1.559	1.562	87.95	437	458 (66500)	136.15	677	682 (99000)	1.55	16	16	Satisfactory
	2	16	15.91	1.561		95.52	475		131.17	652		1.37	18		Satisfactory
	3	16	15.93	1.565	92.71	461	143.98	716	1.55	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	Yield Strength	Tensile Strength	Grade	Yield Strength	Tensile Strength	Minimum Elongation in 8 in. (200 mm) Gauge Length, per cent											
						ASTM A615	ASTM A615M	ASTM A615	ASTM A615M	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	12	7	7	7	7	7	7	7	
75	75,000 (520)	100,000 (690)	520	520 (75,000)	690 (100,000)	9	9	9	9	6	7	7	7	6	6	6	
80	80,000 (550)	105,000 (725)	550	550 (80,000)	725 (105,000)	7	7	7	7	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	7	7	7	7	6	6	6	

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).

Dr. Fahmida Gulshan  
 Professor and Head  
 Talwida  
 09.03.2020  
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