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Department of Materials and Metallurgical Engineering (MME)
 Bangladesh University of Engineering and Technology (BUET)

Client: Mr. Md. Golam Mowla
 QC Manager
 Shahriar Steel Mills Limited
 Konapara, 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(02)/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 (G.L. 200 mm)	Average Elongation	Bend Test (Separate Samples)
		Designation / Nominal Dia													
SSRM RB 400 12	1	12	11.85	0.866	0.865	50.03	442	442 (64000)	71.01	628	624 (90500)	1.42	17	18	Satisfactory
		12	11.84	0.864		49.78	440		70.46	623		1.42	19		Satisfactory
	2	12	11.85	0.866	0.865	50.13	443	442 (64000)	70.14	620	624 (90500)	1.40	19	18	Satisfactory
		12	11.85	0.866		50.13	443		70.14	620		1.40	19		Satisfactory
	3	12	11.85	0.866	0.865	50.13	443	442 (64000)	70.14	620	624 (90500)	1.40	19	18	Satisfactory
		12	11.85	0.866		50.13	443		70.14	620		1.40	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	0.868	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)	Yield Strength MPa (psi)	Tensile Strength MPa (psi)	Grade ASTM A615 (A615M)	Grade ASTM A615 (A615M)
40	40,000 (280)	60,000 (420)	280 (40,000)	420 (60,000)	10	12, 16
60	60,000 (420)	90,000 (620)	420 (60,000)	620 (90,000)	9	9
75	75,000 (520)	100,000 (690)	520 (75,000)	690 (100,000)	7	7
80	80,000 (550)	105,000 (725)	550 (80,000)	725 (105,000)	7	7
100	100,000 (690)	115,000 (790)	690 (100,000)	790 (115,000)	7	7

Dr. Fahmida Gulshan
 Professor and Head
 09.03.2020



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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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