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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, Jattrabari
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(11)/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)
		Designation / Nominal Dia													
SSRM RB 400 25	1	25	25.0	3.851	3.839	209.50	427	427 (62000)	333.55	679	677 (98000)	1.59	18	18	Satisfactory
	2	25	24.98	3.845		207.23	422		331.58	675		1.60	18		Satisfactory
	3	25	24.90	3.819		212.03	432		332.33	677		1.57	18		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

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	10	12.16	12	12	20	25	28, 32, 36	40, 50, 60
60	60,000 (420)	90,000 (620)	420	420 (60,000)	620 (90,000)	11	11	12	12	12	12	8	7	7
75	75,000 (520)	100,000 (690)	520	520 (75,000)	690 (100,000)	9	9	9	9	7	7	7	6	6
80	80,000 (550)	105,000 (725)	550	550 (80,000)	725 (105,000)	7	7	7	7	7	7	7	6	6
100	100,000 (690)	115,000 (790)	690	690 (100,000)	790 (115,000)	7	7	7	7	7	7	7	6	6



m29wbkuptw

Ahmed Sharif
Dr. Ahmed Sharif
Professor and Head
Ke.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).

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