

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(08)/2019-20

TEST OF DEFORMED M.S. REBAR (BDS ISO 6935-2-2016)

Frog Mark/ Description	Sample No.	Bar Designation /Nominal Dia	Actual Diameter	Weight/ Length	Average Weight/ Length	Yield Load	Yield Strength, Rel	Average Yield Strength	Tensile Load	Tensile Strength, R _m	Average Tensile Strength	R _m /R _{el}		Elongation (GL 5D)	Average Elongation	Elongation at Maximum Force, A _r	Bend Test (Separate Samples)	Re-Bend Test (Separate Samples)
												kg/m	kg/m					
SSRM TMT 500W 10	1	10	9.95	0.610	0.609	40.09	510	510 (74000)	49.30	628	631 (91500)	1.23	22	26	8	Satisfactory	Satisfactory	
	2	10	9.92	0.607		40.00	509		49.60	632		1.24	32		9	Satisfactory	Satisfactory	
	3	10	9.93	0.608		40.25	512		49.73	633		1.24	24		10	Satisfactory	Satisfactory	

* Strength values are calculated based on nominal area.

Weight Requirements and Nominal Cross-Sectional Area for Steel Rebar (As Per BDS ISO 6935-2-2016 Table 2)

Bar Designation Number/Nominal Bar Diameter, mm	6	8	10	12	16	20	25	28	32	40
Nominal Mass per Unit Length, kg/m	0.222	0.395	0.617	0.888	1.58	2.47	3.85	4.84	6.31	9.86
Permissible Variation of Nominal Mass per Unit Length, %	±8	±8	±6	±6	±5	±5	±4	±4	±4	±4
Nominal Cross-Sectional Area, mm ²	28.3	50.3	78.5	113	201	314	491	616	804	1257

Minimum Tensile Requirements for Steel Rebar (As Per BDS ISO 6935-2-2016 Table 6)

Steel Grade	Upper Yield Strength		R _m /R _{el}		Ductility Properties	
	R _{el} MPa	Minimum	Minimum	Maximum	A %	A _r %
B400C-R / B400CVR	400	Maximum	1.15	14	14	7
B500C-R / B500CVR	500	Maximum	1.25	17	17	7
B400DVR	400	Maximum	1.25	16	16	8
B420DVR	420	1.3 x R _{el} (min.)	1.25	13	13	8
B500DVR	500	Maximum	1.25	13	13	8



6y/wkruetx

Dr. Fahmida Gulshan
Professor and Head
16.02.2020