

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(12)/2019-20

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

Frog Mark/ Description	Sample No.	Bar	Actual Diameter	Weight/ Length	Average Weight/ Length	Yield Load	Yield Strength, R _{eL}	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 _{gt}	Bend Test (Separate Samples)	Re-Bend Test (Separate Samples)
		Designation / Nominal Dia															
SSRM TMT 500W 25	1	25	24.87	3.815	3.811	276.47	563	553 (80000)	343.76	700	692 (100500)	1.24	19	20	10	Satisfactory	Satisfactory
	2	25	24.87	3.815		268.51	547		338.08	689		1.26	21		11	Satisfactory	Satisfactory
	3	25	24.84	3.803		269.15	548		336.96	686		1.25	21		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 _{yk} MPa	Minimum	Minimum	Maximum	A %	A _{gt} %
B400C R / B400CWR	400	400	1.15	14	14	7
B500C R / B500CWR	500	500	1.15	14	14	7
B400DWR	400	400	1.25	16	16	8
B420DWR	420	420	1.25	16	16	8
B500DWR	500	500	1.25	13	13	8



6y/wk/rue/tk

Fahmida
Dr. Fahmida Gulshan
Professor and Head
16.02.2020