

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(11)/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 20	1	20	19.94	2.453	2.452	179.62	572	572 (83000)	217.95	694	689 (100000)	1.21	22	20	10	Satisfactory	Satisfactory
	2	20	19.95	2.453		179.02	570		214.22	682		1.20	19		9	Satisfactory	Satisfactory
	3	20	19.93	2.450		180.64	575		217.22	691		1.20	18		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



6ywkriuextx

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

Steel Grade	Upper Yield Strength		R _{eL} /R _m		Ductility Properties			
	Minimum MPa	Maximum	Minimum	Maximum	A %	B %		A _{gt} %
B400C-R / B400CWR	400		1.15		14			7
B500C-R / B500CWR	500				17			
B400DWR	400				16			
B420DWR	420	1.3 x R _{eL} (min.)	1.25		16			8
B500DWR	500				13			

Fahwida 16.02.2020

Dr. Fahmida Gulshan
 Professor and Head

Please note: The client supplied the sample and the result given herewith corresponds to the sample tested only. The Department of Materials and Metallurgical Engineering of BUET takes no responsibility regarding the misidentification, if any, of the sample.