

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(08)/2019-20

TEST OF DEFORMED M.S. REBAR

Frog Mark/ Description	Sample No.	Bar	Actual	Weight/	Average	Yield	Yield	Average	Tensile	Tensile	Average	R _m /R _{eL}	Elongation	Average	Elongation	Bend Test	Re-Bend Test
		Designation / Nominal Dia	Diameter	Length	Weight/ Length	Load	Strength, R _{eL}	Yield Strength	Load	Strength, R _m	Tensile Strength	(G.L. SD)	Elongation	at Maximum Force, A _{gt}	(Separate Samples)	(Separate Samples)	
SSRM TMT 500W 10	1	10	9.93	0.608	41.72	531	527	51.31	653	652	1.23	25	22	10	Satisfactory	Satisfactory	
		10	9.94	0.609	41.58	529	51.50	656	652	1.24	18	7		Satisfactory	Satisfactory		
	2	10	9.93	0.607	41.01	522	50.72	646	646	1.24	23	11	Satisfactory	Satisfactory			
		10	9.93	0.607	41.01	522	50.72	646	646	1.24	23		11	Satisfactory	Satisfactory		

* Strength values are calculated based on nominal area.

Weight Requirements and Nominal Cross-Sectional Area for Steel Rebar (As Per B05 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 B05 ISO 6935-2-2016 Table 6)

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



Fahmida 09.03.2020

Dr. Fahmida Gulshan
Professor and Head



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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.