

যাদবপুর বিশ্ববিদ্যালয়

Faculty of Engineering & Technology
DEPT. OF CONSTRUCTION ENGINEERING



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Laboratory Test Certificate

Dated:- 09/11/2016

1. Test done for : The Maithan Steel and Power Limited, 9, A.J.C. Bose Road, Ideal Centre, 6th Floor, Kolkata - 71.
2. Letter Ref No. : Nil Dated:- 19/10/2016
3. Type of Test : Physical & Chemical Tests of 8mm, 10mm, 12mm, 16mm & 20mm Dia. Steel Bars (Brand – MAITHAN TMT, Grade Fe-600) (Conforms to IS : 1786 – 2008)

Test Results :-

Physical Test:-

Nominal Bar dia (mm)	Unit Wt. (Kg/m)		Yield Stress (0.2% Proof Stress) (N/mm ²)		Ultimate Strength (Tensile Strength) (N/mm ²)		Elongation (%)		Bend & Re-Bend Test
	Value obtained	Standard	Value obtained	Permissible (Min)	Value obtained	Permissible (Min)	Value obtained	Permissible (Min)	
8mm (Fe-600)	0.398	0.395	646	600	738	660	17	10	O.K
10mm (Fe-600)	0.619	0.617	632		710		16		O.K
12mm (Fe-600)	0.891	0.889	619		690		16		O.K
16mm (Fe-600)	1.579	1.580	626		722		14		O.K
20mm (Fe-600)	2.470	2.469	612		688		14		O.K

(Tolerance for dia including and upto 10mm , over 10mm and including and upto 16mm and over 16mm nominal masses of $\pm 7\%$, $\pm 5\%$, $\pm 3\%$ respectively are allowable) .

Chemical Test:-

Bar dia. (mm)	Carbon as C %		Sulphur as S %		Phosphorus P %		Sulphur & Phosphorus	
	Value obtained	Permissible (max)	Value obtained	Permissible (max)	Value obtained	Permissible (max)	Value obtained	Permissible (max)
8mm (Fe-600)	0.24	0.30	0.036	0.040	0.030	0.040	0.066	0.075
10mm (Fe-600)	0.21		0.035		0.033		0.068	
12mm (Fe-600)	0.19		0.034		0.034		0.068	
16mm (Fe-600)	0.22		0.037		0.033		0.070	
20mm (Fe-600)	0.26		0.035		0.035		0.070	

(Tolerance over Specified Maximum Limit – Carbon 0.02% Max, Sulphur 0.005% Max, Phosphorus 0.005% Max, Sulphur and Phosphorus 0.010% Max) .

Note:- Tests were carried out on the samples sent by the party.

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