

TEST REPORT

ULR - TC690521000014794F

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T.C. No. : CD1669
Issued To. : M/s SHRI KARVIR NIVASINI MAHALAXMI ISPAT PVT. LTD.
A-8,MIDC, Gokul, Shirgaon. KOLHAPUR-416 234

Date: 13-07-2021

Party Ref. : M/23/21-22
Ref. Date : 28-06-2021
Description of Sample : TMT Steel Bar
Specification : IS 1786 : 2008 (Ra 2018) Grade Fe 500
Sample Drawn By : Party

Condition of Sample : Cut Length
Sample Received on : 30-06-2021
Date of Completion : 13-07-2021
Enclosure : NIL

Test : TENSILE, BEND, REBEND, Deformations and Surface Characteristics, SECTIONAL WEIGHT, SPECTRO CHEMICAL ANALYSIS

Size 32mm Dia

I. Mechanical Testing

1. Mechanical Properties of Metals

TENSILE TEST

Test Method : IS 1608 Part 1:2018

Equipment : ZD 100/0-1000KN

		Requirement
Weight of specimen (gm)	3822	
Length of specimen (mm)	610.00	
Sectional weight (kg/m)	6.2656	
Cross- sectional area (mm ²)	798.16	
Original gauge length (mm)	160.00	
0.2% Proof load (N)	410429	
0.2% Proof strength (N/mm ²)	514.22	500 min.
Ultimate tensile load (N)	520120	
U.T.S (N/mm ²)	651.65	545 min.
Final gauge length (mm)	193.32	
TS/YS ratio (N/mm ²)	1.27	1.08 min.
Elongation (%)	20.82	12.00 min.
Fracture	W.G.L	
Result	Satisfactory	


D.N. GAICHOR
(HOD Chemical)


AVINASH TAMBEWAGH
(Head-Advanced Testing)

TCR Engineering Services, India: Redefining On-Time Quality since 1973

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Test : TENSILE, BEND, REBEND, Deformations and Surface
Characteristics, SECTIONAL WEIGHT, SPECTRO CHEMICAL
ANALYSIS

Size 32mm Dia

BEND TEST

Test Method : IS 1599 - 2012 (RA-2017)

Equipment : ZD 100/0-1000KN

Mandrel diameter for bend (mm)	160.00
Angle of bend (°)	180
Observation(without magnification)	No crack
Result	Satisfactory

REBEND TEST

Test Method : IS 1786:2008 (RA2018)

Equipment : ZD 100/0-1000KN

Mandrel diameter (mm)	224.00
Bent included angle (°)	135
Specimen aging (in boiling water)	100
Temperature (°C)	
Bent back included angle	157.5
Observation	No crack
Result	Satisfactory

II. Chemical Testing

2. Metals and Alloys

SPECTRO CHEMICAL ANALYSIS

	Result	Test Method	Requirement
% Carbon	0.21	ASTM E415:2017	0.30 max.
% Sulphur	0.032	ASTM E415:2017	0.055 max.
% Phosphorus	0.033	ASTM E415:2017	0.055 max.
% S+P	0.065		0.105 max.
Result	Satisfactory		

Remark: The above result(s) meets the specified requirements of IS 1786 : 2008 (Ra 2018) Grade Fe 500 with respect to test(s) carried out.

Note : For Deformations and Surface Characteristics & Sectional Weight please refer T.C.No.: CD/1669-1

vk/-



*****END OF REPORT*****

Issued By
D.N. GAICHOR
(HOD Chemical)

Reviewed & Authorised By
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Date: 13-07-2021

T.C. No. : CD1669-1
Issued To. : M/s SHRI KARVIR NIVASINI MAHALAXMI ISPAT PVT. LTD.
 A-8,MIDC, Gokul, Shirgaon. KOLHAPUR-416 234

Party Ref.	: M/23/21-22	Condition of Sample	: Cut Length
Ref. Date	: 28-06-2021		
Description of Sample	: TMT Steel Bar		
Specification	: IS 1786 : 2008 (Ra 2018) Grade Fe 500	Sample Received on	: 30-06-2021
Sample Drawn By	: Party	Date of Completion	: 13-07-2021
		Enclosure	: NIL
Test	: TENSILE, BEND, REBEND, Deformations and Surface Characteristics, SECTIONAL WEIGHT, SPECTRO CHEMICAL ANALYSIS		

Size 32mm Dia

I. Mechanical Testing

1. Mechanical Properties of Metals

Deformations and Surface Characteristics

Test Method : IS 1786:2008 (RA2018)

Mean projected rib area (mm²/mm). 5.89
 Result Satisfactory

Requirement
5.44 min.

SECTIONAL WEIGHT

Test Method : IS 1786:2008 (RA2018)

Equipment : Range 0-30 Kg, Digital Weight Balance, Serial No. 04981

Weight of specimen (gm) 6314
 Length of specimen (mm) 1009
 Sectional weight (kg/m) 6.2577
 Result Satisfactory


Requirement

6.058 min.

vk/-



*****END OF REPORT*****


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