

## TEST REPORT

ULR - TC690521000016825F

Page 1 of 2

T.C. No. : CD5202

Date: 06-08-2021

Issued To. : M/s SHRI KARVIR NIVASINI MAHALAXMI ISPAT PVT. LTD.  
A-8,MIDC, Gokul, Shirgaon. KOLHAPUR-416 234

Party Ref. :	M/039/21-22	Condition of Sample :	Cut Length
Ref. Date :	28-07-2021		
Description of Sample :	TMT Steel Bar		
Specification :	IS 1786 : 2008 (Ra 2018) Grade Fe 500	Sample Received on :	03-08-2021
Sample Drawn By :	Party	Date of Completion :	06-08-2021
		Enclosure :	Graphs

Test : TENSILE, BEND, REBEND, SPECTRO CHEMICAL ANALYSIS

Size : 8mm 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)	232	
Length of specimen (mm)	603.00	
Sectional weight (kg/m)	0.3847	
Cross- sectional area (mm <sup>2</sup> )	49.01	
Original gauge length (mm)	40.00	
0.2% Proof load (N)	28127	
0.2% Proof strength (N/mm <sup>2</sup> )	573.88	500 min.
Ultimate tensile load (N)	32330	
U.T.S (N/mm <sup>2</sup> )	659.64	545 min.
Final gauge length (mm)	48.21	
TS/YS ratio (N/mm <sup>2</sup> )	1.15	1.08 min.
Elongation (%)	20.53	12.00 min.
Fracture	W.G.L	
Result	Satisfactory	



**B. G. MORE**  
(Sr. Chemist)



**AVINASH TAMBEWAGH**  
(Head-Advanced Testing)

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

A NABL/ISO 17025 : 2017 and BIS accredited Material Testing, Metallurgical Evaluation, Corrosion Testing, NDT/Inspection, Civil Audit, Engineering Consulting &amp; Research Laboratory.

- The results that are reported in this Test Report only relate to the sample(s) provided and tested.
- This Test Report cannot be re-produced either in part or in full without the explicit written approval of TCR.
- TCR always strives to provide accurate and reliable reporting for all its customers. However, it is not responsible for any financial/legal liability arising out of any errors or omissions. Refer to Terms & Conditions of the report overleaf.



# TEST REPORT

Page 2 of 2

ULR - TC690521000016825F

T.C. No. : CD5202

Date: 06-08-2021

Issued To. : M/s SHRI KARVIR NIVASINI MAHALAXMI ISPAT PVT. LTD.  
A-8,MIDC, Gokul, Shirgaon. KOLHAPUR-416 234

Test : TENSILE, BEND, REBEND, SPECTRO CHEMICAL ANALYSIS

Size 8mm Dia

## BEND TEST

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

Equipment : ZD 100/0-1000KN

Mandrel diameter for bend (mm) 32.00  
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) 40.00  
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	0.25	ASTM E415:2017	0.30 max.
% Sulphur	0.035	ASTM E415:2017	0.055 max.
% Phosphorus	0.045	ASTM E415:2017	0.055 max.
% S+P	0.080		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.

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

vk/-

CHECKED BY  
  
**Checked By**

Issued By

**B. G. MORE**  
(Sr. Chemist)

Reviewed &amp; Authorised By

**AVINASH TAMBEWAGH**  
(Head-Advanced Testing)

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

A NABL/ISO 17025 : 2017 and BIS accredited Material Testing, Metallurgical Evaluation, Corrosion Testing, NDT/Inspection, Civil Audit, Engineering Consulting &amp; Research Laboratory.

- The results that are reported in this Test Report only relate to the sample(s) provided and tested.
- This Test Report cannot be re-produced either in part or in full without the explicit written approval of TCR.
- TCR always strives to provide accurate and reliable reporting for all its customers. However, it is not responsible for any financial/legal liability arising out of any errors or omissions. Refer to Terms & Conditions of the report overleaf.





# TEST REPORT

Page 1 of 1  
Date: 13-07-2021

T.C. No. : CD1663-1  
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  
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 : 8mm Dia

## I. Mechanical Testing

### 1. Mechanical Properties of Metals

#### Deformations and Surface Characteristics

Test Method : IS 1786:2008 (RA2018)

Mean projected rib area (mm<sup>2</sup>/mm). : 1.10  
Result : Satisfactory

Requirement  
0.96 min.

#### SECTIONAL WEIGHT

Test Method : IS 1786:2008 (RA2018)

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

Weight of specimen (gm) : 386  
Length of specimen (mm) : 1002  
Sectional weight (kg/m) : 0.3852  
Result : Satisfactory

Requirement  
0.363 min.

vk/-



Checked By

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



Reviewed & Authorised By  
**AVINASH TAMBEWAGH**  
(Head-Advanced Testing)

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

Material Testing, Metallurgical Evaluation, Corrosion Testing, NDT/Inspection, Civil Audit,  
Engineering Consulting & Research Laboratory.

1. The results that are reported in this Test Report only relate to the sample(s) provided and tested.
2. This Test Report cannot be re-produced either in part or in full without the explicit written approval of TCR.
3. TCR always strives to provide accurate and reliable reporting for all its customers. However, it is not responsible for any financial/legal liability arising out of any errors or omissions. Refer to Terms & Conditions of the report overleaf.

