

Testing to the Core

## TEST REPORT



Issued to:

**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

**ULR No.: TC591825100010910F**

Report No: LL/24-25/009488

Issue Date: 07/02/2025.

C. Ref: Gate pass :145.

Ref. Date: 07/12/2024.

**Sample Particulars: TMT BAR - Ø8mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.**

 Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

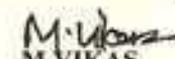
### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.22
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.033
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.035
4	Manganese as Mn	% by mass	---	0.70
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.068
6	Silicon as Si	% by mass	--	0.26
7	Carbon equivalent, CE	.	0.61 Max	0.40
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.007
9	Nitrogen Content	% by mass	0.012 Max.	0.006
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	8.0	8.0
2	Nominal cross-sectional area	mm <sup>2</sup>	50.3	48.43
3	Mass per metre	kg	0.395 - 8%	0.380
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.15 (TS 660 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min.	572
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	24.4
<b>IV</b>	Bend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	Rebend Test	Visual	Pass the test if there is no rupture or cracks in the rebent portion.	No rupture or cracks observed.

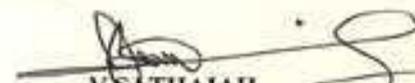
Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) &amp; SOP MT 23 - 2021.

Remarks: The above submitted samples confirming to IS:1786-2008(RA2018), Gr.Fe550D w.r.t the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
**M. VIKAS**  
 AUTHORISED SIGNATORY

Page 1 of 1

  
**V. SATHAIAH**  
 AUTHORISED SIGNATORY

## 119267

Note: This report is subject to the terms and conditions mentioned overleaf

## TEST REPORT



Issued to:

**AMMAN - TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
Pellakuru (M), Naidupeta  
Tirupati District - 524129  
Andhra Pradesh - INDIA

Report No: LL/24-25/009488/N  
Issue Date: 07/02/2025.  
C. Ref: Gate pass :145.  
Ref. Date: 07/12/2024.

Sample Particulars: TMT BAR - Ø8mm Grade: Fe550D BRAND NAME: AMMAN-TRY.

Quantity: 1 Set. Packing: Loose. Sample Condition: Ambient.  
Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
I	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 45.0 percent at 0.025mm slip and 85.5 percent at 0.25mm slip, When compare with plain round bar of same size.
II	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.12 Ø for Ø < 10mm (i.e., 0.96 Min.)	1.06
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 0.96 = 0.32Min)	1.06
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
III	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	9.5

Method of testing: As per IS : 2770 (P1) & IS: 1786-2008 (RA 2018).

Remarks: The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t the above test parameters.

Note: The report and results relate only to the samples/items tested.

## TEST REPORT



Issued to:

**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
Pellakuru (M), Naidupeta  
Tirupati District - 524129  
Andhra Pradesh - INDIA

ULR No.: TC591825100010911F

Report No: LL/24-25/009489

Issue Date: 07/02/2025.

C. Ref: Gate pass :145

Ref. Date: 07/12/2024.

Sample Particulars: TMT BAR - Ø10mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

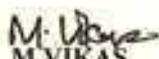
### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.22
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.024
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.033
4	Manganese as Mn	% by mass	---	0.62
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.057
6	Silicon as Si	% by mass	---	0.20
7	Carbon equivalent, CE		0.61 Max.	0.37
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.006
9	Nitrogen Content	% by mass	0.012 Max.	0.007
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	10.0	10.0
2	Nominal cross-sectional area	mm <sup>2</sup>	78.6	74.41
3	Mass per metre	kg	0.617 - 8%	0.584
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.17 (TS 654 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min	558
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	24.8
<b>IV</b>	Bend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	Rebend Test	Visual	Pass the test if there is no rupture or cracks in the rebent portion.	No rupture or cracks observed.

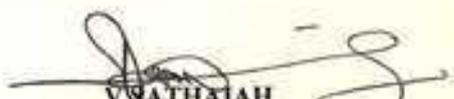
Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) & SOP MT 23 - 2021.

Remarks: The above submitted samples conforming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t. the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
M.VIRAS  
AUTHORISED SIGNATORY

Page 1 of 1

  
V.ATHAIYAH  
AUTHORISED SIGNATORY

119263

Note: This report is subject to the terms and conditions mentioned overleaf

## TEST REPORT



Issued to:

**AMMAN - TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
Pellakuru (M), Naidupeta  
Tirupati District - 524129  
Andhra Pradesh - INDIA

Report No: LL/24-25/009489/N  
Issue Date: 07/02/2025.  
C. Ref: Gate pass :145.  
Ref. Date: 07/12/2024.

Sample Particulars: **TMT BAR - Ø10mm**      **Grade: Fe550D**      **BRAND NAME: AMMAN-TRY.**

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
I	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 44.0 percent at 0.025mm slip and 83.5 percent at 0.25mm slip. When compare with plain round bar of same size.
II	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.12 Ø for Ø < 10mm (i.e., 1.20 Min.)	1.63
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 1.20 = 0.4Min)	1.63
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
III	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	10.0

**Method of testing:** As per IS : 2770(P1) & IS: 1786-2008(RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr.Fe550D w.r.t the above test parameters.

**Note:** The report and results relate only to the samples/items tested.

## TEST REPORT



Issued to:

**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

**ULR No.: TC591825100010912F**

 Report No: LL/24-25/009490  
 Issue Date: 07/02/2025.  
 C. Ref: Gate pass :145.  
 Ref. Date: 07/12/2024.

**Sample Particulars: TMT BAR – Ø12mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.**

 Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

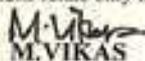
### TEST RESULTS

SL No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.20
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.032
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.033
4	Manganese as Mn	% by mass	---	0.69
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.065
6	Silicon as Si	% by mass	--	0.28
7	Carbon equivalent, CE	.	0.61 Max	0.38
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.002
9	Nitrogen Content	% by mass	0.012 Max.	0.007
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	12.0	12.0
2	Nominal cross-sectional area	mm <sup>2</sup>	113.1	109.4
3	Mass per metre	kg	0.888 - 6%	0.859
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.20 (TS 686 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min.	573
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	21.9
<b>IV</b>	<b>Bend Test</b>	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	<b>Rebend Test</b>	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.

Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) &amp; SOP MT 23 - 2021.

Remarks: The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t the above test parameters.

NOTE : This report and results relate only to the sample / items tested.


 M. VIKAS

**AUTHORISED SIGNATORY**

Page 1 of 1


 V. SATHIAH  
**AUTHORISED SIGNATORY**
119271

Note: This report is subject to the terms and conditions mentioned overleaf

## TEST REPORT



Issued to:

**AMMAN - TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
Pellakuru (M), Naidupeta  
Tirupati District - 524129  
Andhra Pradesh - INDIA

Report No: LL/24-25/009490/N  
Issue Date: 07/02/2025.  
C. Ref: Gate pass :145.  
Ref. Date: 07/12/2024.

Sample Particulars: **TMT BAR - Ø12mm**      Grade: **Fe550D**      BRAND NAME: **AMMAN-TRY.**

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
Test Required: Pull out test, Requirements for Bond (Deformation and surface characteristics) & Total elongation at maximum force on 5.65 SoA mm GL.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
I	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 43.0 percent at 0.025mm slip and 82.5 percent at 0.25mm slip. When compare with plain round bar of same size.
II	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.15 Ø for 10mm Ø < 16mm (i.e., 1.80 Min.)	1.95
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 1.80 = 0.60Min)	1.95
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
III	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	9.2

**Method of testing:** As per IS: 2770(P1) & IS: 1786-2008 (RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t. the above test parameters.

**Note:** The report and results relate only to the samples/items tested.

## TEST REPORT



Issued to:  
**AMMAN -TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

**ULR No.: TC591825100010913F**  
 Report No: LL/24-25/009491  
 Issue Date: 07/02/2025.  
 C. Ref: Gate pass :145.  
 Ref. Date: 07/12/2024.

Sample Particulars: **TMT BAR – Ø16mm**      Grade: **Fe550D**      BRAND NAME: **AMMAN-TRY.**

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

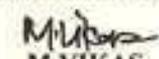
### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.24
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.032
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.032
4	Manganese as Mn	% by mass	---	0.75
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.064
6	Silicon as Si	% by mass	--	0.29
7	Carbon equivalent, CE		0.61 Max.	0.43
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.006
9	Nitrogen Content	% by mass	0.012 Max.	0.006
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	16.0	16.0
2	Nominal cross-sectional area	mm <sup>2</sup>	201.2	195.3
3	Mass per metre	kg	1.58 - 6%	1.53
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.22 (TS 695 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min.	572
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	21.9
<b>IV</b>	Bend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	Rebend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.

Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) & SOP MT 23 – 2021.

Remarks: The above submitted samples conforming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t. the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
**M. VIKAS**  
 AUTHORISED SIGNATORY

Page 1 of 1

  
**V. SATHIAH**  
 AUTHORISED SIGNATORY

## TEST REPORT



Issued to:  
**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
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Report No: LL/24-25/009491/N  
Issue Date: 07/02/2025.  
C. Ref: Gate pass :145  
Ref. Date: 07/12/2024.

Sample Particulars: TMT BAR – Ø16mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
I	Pull-out test	Percent	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 43.5 percent at 0.025mm slip and 84.0 percent at 0.25mm slip, When compare with plain round bar of same size.
II	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.15 Ø for 10mm Ø < 16mm (i.e., 2.40 Min.)	3.93
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 2.40 = 0.80 Min)	3.93
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
III	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	9.2

**Method of testing:** As per IS : 2770(P1) & IS: 1786-2008(RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t the above test parameters.

**Note:** The report and results relate only to the samples/items tested.

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Issued to:  
**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

ULR No.: TC591825100010914F  
 Report No: LL/24-25/009492  
 Issue Date: 07/02/2025.  
 C. Ref: Gate pass :145.  
 Ref. Date: 07/12/2024.

Sample Particulars: TMT BAR – Ø20mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

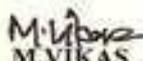
### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.20
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.028
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.039
4	Manganese as Mn	% by mass	---	0.72
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.067
6	Silicon as Si	% by mass	--	0.30
7	Carbon equivalent, CE		0.61 Max.	0.37
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.011
9	Nitrogen Content	% by mass	0.012 Max.	0.006
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	20.0	20.0
2	Nominal cross-sectional area	mm <sup>2</sup>	314.3	309.0
3	Mass per metre	kg	2.47 - 4%	2.42
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.15 (TS 683 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min	595
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	26.3
<b>IV</b>	Bend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	Rebend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.

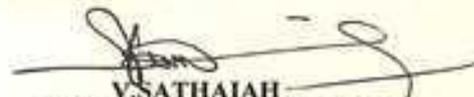
Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) & SOP MT 23 - 2021.

Remarks: The above submitted samples conforming to IS: 1786-2008(RA2018), Gr: Fe550D w.r.t the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
**M. VIKAS**  
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Page 1 of 1

  
**V. SATHAIAH**  
 AUTHORISED SIGNATORY

119275

Note: This report is subject to the terms and conditions mentioned overleaf

## TEST REPORT



Issued to:

**AMMAN - TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

 Report No: LL/24-25/009492/N  
 Issue Date: 07/02/2025.  
 C. Ref: Gate pass :145.  
 Ref. Date: 07/12/2024.

**Sample Particulars: TMT BAR – Ø20mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.**

 Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 43.5 percent at 0.025mm slip and 84.5 percent at 0.25mm slip. When compare with plain round bar of same size.
<b>II</b>	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.17 Ø for Ø > 16mm (i.e., 3.40 Min.)	4.28
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 3.40 = 1.13Min)	4.28
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
<b>III</b>	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	10.1

**Method of testing:** As per IS: 2770(P1) & IS: 1786-2008(RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t the above test parameters.

**Note:** The report and results relate only to the samples/items tested.

Testing to the Core



## TEST REPORT

Issued to:  
**AMMAN-TRY SPONGE & POWER PVT. LTD.**  
SF Nos. 268-271, Sirasanambedu (V)  
Pellakuru (M), Naidupeta  
Tirupati District - 524129  
Andhra Pradesh - INDIA

ULR No.: **TC591825100010915F**  
Report No: LL/24-25/009493  
Issue Date: 07/02/2025,  
C. Ref. Gate pass :145.  
Ref. Date: 07/12/2024.

Sample Particulars: **TMT BAR – Ø25mm**      Grade: **Fe550D**      BRAND NAME: **AMMAN-TRY.**

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.19
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.032
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.032
4	Manganese as Mn	% by mass	---	0.66
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.064
6	Silicon as Si	% by mass	--	0.23
7	Carbon equivalent, CE	.	0.61 Max.	0.36
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.006
9	Nitrogen Content	% by mass	0.012 Max.	0.006
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	25.0	25.0
2	Nominal cross-sectional area	mm <sup>2</sup>	491.1	481.5
3	Mass per metre	kg	3.85 - 4%	3.784
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.20 (TS 689 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min	574
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	20.0
<b>IV</b>	Bend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	Rebend Test	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.

Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) & SOP MT 23 - 2021.

Remarks: The above submitted samples conforming to IS:1786-2008(RA2018), Gr-Fe550D w.r.t the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
**M. VIKAS**  
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**V. SATHAIAH**  
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## TEST REPORT



Issued to:

**AMMAN-TRY SPONGE & POWER PVT. LTD.**

SF Nos. 268-271, Sirasanambedu (V)

Pellakuru (M), Naidupeta

Tirupati District - 524129

Andhra Pradesh - INDIA

Report No: LL/24-25/009493/N

Issue Date: 07/02/2025.

C. Ref: Gate pass :145.

Ref. Date: 07/12/2024.

Sample Particulars: TMT BAR – Ø25mm Grade: Fe550D BRAND NAME: AMMAN-TRY.

Quantity: 1 Set. Packing: Loose. Sample Condition: Ambient.  
Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
Date of receipt of sample : 04/01/2025.  
Date of starting of analysis : 04/01/2025.  
Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
I	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 42.5 percent at 0.025mm slip and 82.5 percent at 0.25mm slip. When compare with plain round bar of same size.
II	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.17 Ø for Ø > 16mm (i.e., 4.25 Min.)	4.59
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 4.25 = 1.42Min)	4.59
3	Rolling and cold working of bars/wires	Visual.	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
III	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	8.9

**Method of testing:** As per IS : 2770(P1) & IS: 1786-2008(RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr.Fe550D w.r.t the above test parameters.

**Note:** The report and results relate only to the samples/items tested.

## TEST REPORT



Issued to:  
**AMMAN - TRY SPONGE & POWER PVT. LTD.**  
 SF Nos. 268-271, Sirasanambedu (V)  
 Pellakuru (M), Naidupeta  
 Tirupati District - 524129  
 Andhra Pradesh - INDIA

**ULR No.: TC591825100010916F**  
 Report No: LL/24-25/009494  
 Issue Date: 07/02/2025.  
 C. Ref: Gate pass :145.  
 Ref. Date: 07/12/2024.

**Sample Particulars: TMT BAR – Ø32mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.**

Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Chemical composition, Mass per running metre, TS/YS Ratio, 0.2% Proof Stress/Yield Stress, Elongation on 5.65 SoA mm GL, Bend test and Rebend test.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

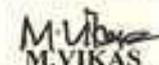
### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	<b>Chemical composition</b>			
1	Carbon as C	% by mass	0.25 + 0.02 Max.	0.20
2	Sulphur as S	% by mass	0.040 + 0.005Max.	0.027
3	Phosphorus as P	% by mass	0.040 + 0.005Max.	0.037
4	Manganese as Mn	% by mass	---	0.65
5	Sulphur + Phosphorus	% by mass	0.075 + 0.010 Max.	0.064
6	Silicon as Si	% by mass	--	0.17
7	Carbon equivalent, CE	.	0.61 Max.	0.36
8	Micro-alloying elements (Nb+V+Ti+B)	% by mass	0.30 Max.	0.006
9	Nitrogen Content	% by mass	0.012 Max.	0.008
<b>II</b>	<b>Nominal Sizes</b>			
1	Nominal size of bar	mm	32.0	32.0
2	Nominal cross-sectional area	mm <sup>2</sup>	804.6	791.1
3	Mass per metre	kg	6.31 - 4%	6.21
<b>III</b>	<b>Physical properties</b>			
1	TS/YS Ratio	---	≥ 1.08 (but TS not less than 600 N/mm <sup>2</sup> )	1.22 (TS 722 N/mm <sup>2</sup> )
2	0.2% Proof Stress/Yield Stress	N/mm <sup>2</sup>	550 Min	589
3	Elongation on 5.65 SoA mm Gauge Length	Percent	14.5 Min.	21.5
<b>IV</b>	<b>Bend Test</b>	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.
<b>V</b>	<b>Rebend Test</b>	Visual	Pass the test if there is no rupture or cracks in the bent portion.	No rupture or cracks observed.

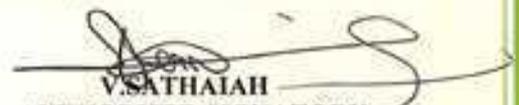
Method of testing: As per IS: 8811-1998(RA2018), IS: 1608(P1)-2022, IS: 1599-2023, IS: 1786-2008(RA2018) & SOP MT 23 - 2021.

Remarks: The above submitted samples conforming to IS: 1786-2008(RA2018), Gr.Fe550D w.r.t. the above test parameters.

NOTE : This report and results relate only to the sample / items tested.

  
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**V. SATHIAH**  
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## TEST REPORT



Issued to:

**AMMAN –TRY SPONGE & POWER PVT. LTD.**

SF Nos. 268-271, Sirasanambedu (V)

Pellakuru (M), Naidupeta

Tirupati District - 524129

Andhra Pradesh - INDIA

Report No: LL/24-25/009494/N

Issue Date: 07/02/2025.

C. Ref: Gate pass :145

Ref. Date: 07/12/2024.

**Sample Particulars: TMT BAR – Ø32mm      Grade: Fe550D      BRAND NAME: AMMAN-TRY.**

 Quantity: 1 Set.      Packing: Loose.      Sample Condition: Ambient.  
 Test Required: Pull out test, Deformation and surface characteristics & Total elongation at maximum force on 5.65 SoA mm GL.  
 Date of receipt of sample : 04/01/2025.  
 Date of starting of analysis : 04/01/2025.  
 Date of completion of analysis : 05/02/2025.

### TEST RESULTS

Sl. No	Test Parameters	UOM	Requirements as per IS: 1786-2008(RA 2018) Grade: Fe550D.	Results
<b>I</b>	Pull-out test	Percent.	The bond strength calculated from the load at a measured slip of 0.025mm and 0.25mm for deformed bars/wires shall exceed that of a plain round bar of the same nominal size by 40 percent and 80 percent respectively.	The bond strength is 43.5 percent at 0.025mm slip and 84.0 percent at 0.25mm slip, When compare with plain round bar of same size.
<b>II</b>	<b>Requirements for Bond (Deformation and surface characteristics)</b>			
1	The mean projected rib area per unit length	mm <sup>2</sup> /mm	0.17 Ø for Ø > 16mm (i.e., 5.44 Min.)	6.24
2	The mean projected area of transverse rib above	mm <sup>2</sup> /mm	Shall not be less than one-third of the value given above. (i.e., 1/3 of 5.44 = 1.81Min)	6.24
3	Rolling and cold working of bars/wires	Visual	The bars/wires shall be well and cleanly rolled and shall be sound and free from surface defects and pipe.	Bars are well and cleanly rolled, sound. Free from surface defects and pipe.
<b>III</b>	<b>Physical properties</b>			
1	Total elongation at maximum force on 5.65 SoA mm GL.	Percent	5.0 Min.	9.2

**Method of testing:** As per IS : 2770(P1) & IS: 1786-2008(RA 2018).

**Remarks:** The above submitted samples confirming to IS:1786-2008(RA2018), Gr:Fe550D w.r.t the above test parameters.

**Note:** The report and results relate only to the samples/items tested.