



Delhi Test House Test Report- 8 mm



DELHI TEST HOUSE



A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
 Phone : +91-11-47075555 (30 Lines) Fax : +91-11-47075550
 e-mail : info@delhistesthouse.com

Report No: 26277090429GEN1713
 Date: 02-05-2009
 Date of Receipt: 29-04-2009
 Party Ref No: LETTER DATE: 28.04.2009

Issued to: The Commercial Manager
 Aar Aar Castings Ltd.
 Vill. Jhamajri, Barotiwala, Indl. Area,
 Baddi, Dist. Solan (H.P.)

Sample Description: TMT-8 mm (AMRAVATI STEEL)

TEST REPORT

Sl.no	Tests	Test Values	Test Method	Requirement
1. CHEMICAL TEST FOR FE-415				
1	Carbon, %	0.19	IS:228 (P-1)	0.30 Max
2	Sulphur, %	0.022	IS:228 (P-9)	0.060 Max
3	Phosphorus, %	0.029	IS:228 (P-3)	0.060 Max
4	Sulphur + Phosphorus, %	0.051	IS:228 (P-9&3)	0.11 Max
2. PHYSICAL TEST FOR FE-415				
1	Yield Stress, N/mm ²	460.00	IS:1608	415 Min
2	Tensile Strength, N/mm ²	584.00	IS:1608	10% MORE THAN ACTUAL STRESS BUT NOT LESS THAN 485
3	% Elongation on Gauge Length 5.65/A	22.00	IS:1608	14.5 Min
4	Bend Test (3 D at 180°)	PASSES THE TEST	IS:1786&IS:1599	No Rupture Or Cracks In The Bent Portion
5	Rebend test	PASSES THE TEST	IS:1786	No Rupture Or Cracks In The Rebent Portion
6	Weight (kg/mtr)	0.398	IS:1786	0.395±7%

Remarks: THE SAMPLE CONFORMS TO IS:1786-2008 FOR GRADE FE-415 WITH RESPECT TO ABOVE TEST

SIL-NIT-136277/SAR-682009020696

M. C. GOEL
 Authorised Signatory
 Director



Delhi Test House Test Report- 10 mm



DELHI TEST HOUSE

A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)

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e-mail : info@delhitesthouse.com



ESTD. 1975

Issued to: **The Commercial Manager**
Aar Aar Castings Ltd.,
VIII Jharmajri, Barotiwala, Indl. Area,
Baddi, Dist. Solan (H.P.)

Report No: **2627809042GGEN1813**
 Date: **02-05-2009**
 Date of Receipt: **29-04-2009**
 Party Ref No: **LETTER DATE: 28.04.2009**

Sample Description: **TMT-10 MM (AMRAVATI STEEL)**

TEST REPORT

Sl.No	Tests	Test Values	Test Method	Requirement
1. CHEMICAL TEST FOR FE-415				
1	Carbon, %	0.22	IS:228 (P-1)	0.30 Max
2	Sulphur, %	0.021	IS:228 (P-9)	0.060 Max
3	Phosphorus, %	0.027	IS:228 (P-3)	0.060 Max
4	Sulphur + Phosphorus, %	0.048	IS:228 (P-83)	0.11 Max
2. PHYSICAL TEST FOR FE-415				
1	Yield Stress, N/mm ²	538.00	IS:1608	415 Min
2	Tensile Strength, N/mm ²	649.00	IS:1608	10% MORE THAN ACTUAL STRESS BUT NOT LESS THAN 485
3	% Elongation on Gauge Length 5.65A	23.30	IS:1608	14.5 Min
4	Bend Test (3 D at 180°)	PASSES THE TEST	IS:1786&IS:1599	No Rupture Or Cracks In The Bent Portion
5	Rebend test	PASSES THE TEST	IS:1786	No Rupture Or Cracks In The Rebent Portion
6	Weight (kg/m ³)	0.592	IS:1786	0.61±7%

Remarks: THE SAMPLE CONFORMS TO IS:1786-2008 FOR GRADE FE-415 WITH RESPECT TO ABOVE TEST

SYS-NIT-1362/8-SAR-68202050596 dcaadpc
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 Authorised Signatory
 Director



Delhi Test House Test Report- 12 mm



DELHI TEST HOUSE

A-82/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
Phone : +91-11-47075555 (30 Lines) Fax : +91-11-47075550
e-mail : info@delhitesthouse.com



ESTD. 1975

Issued to: **The Commercial Manager**
Aar Aar Castings Ltd.,
Vill./Jhannajri, Barotiwala, Indl.Area,
Baddi, Dist. Solan (H.P.)

Sample Description: **TM-12 MM (AMRAVATI STEEL)**

Report No: **26279090429GEN1913**
Date: **02-05-2009**
Date of Receipt: **29-04-2009**
Party Ref No: **LETTER DATE: 28/04/2009**

TEST REPORT

Sl.no	Tests	Test Values	Test Method	Requirement
1.CHEMICAL TEST FOR FE-415				
1	Carbon, %	0.19	IS-228 (P-1)	0.30 Max
2	Sulphur, %	0.022	IS-228 (P-6)	0.060 Max
3	Phosphorus, %	0.032	IS-228 (P-3)	0.060 Max
4	Sulphur + Phosphorus, %	0.054	IS-228 (P-8&3)	0.11 Max
2.PHYSICAL TEST FOR FE-415				
1	Yield Stress, N/mm ²	458.00	IS-1608	415 Min
2	Tensile Strength, N/mm ²	561.00	IS-1608	10% MORE THAN ACTUAL STRESS BUT NOT LESS THAN 485
3	% Elongation on Gauge Length 5.65A	22.30	IS-1608	14.5 Min
4	Bend Test (3 D at 180°)	PASSES THE TEST	IS-1786&IS-1599	No Rupture Or Cracks In The Bent Portion
5	Rebound Test	PASSES THE TEST	IS-1786	No Rupture Or Cracks In The Rebound Portion
6	Weight (kg/m ³)	0.851	IS-1786	0.803±3%

Remarks: **THE SAMPLE CONFORMS TO IS-1786-2008 FOR GRADE FE-415 WITH RESPECT TO ABOVE TEST**

SYN. NO. 130/19-2001-02/2008-2009

Authorised Signatory

Director

N.A.B.L. / ISO-9001 ACCREDITED LABORATORY



Delhi Test House Test Report- 16 mm



DELHI TEST HOUSE

A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)

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ESTD. 1975

Issued to: **The Commercial Manager**
Aar Aar Castings Ltd.,
Vill.Jharmajri, Barotiwala, Ind.Area,
Baddi, Dist. Solan (H.P.)

Sample Description:-**1MT-16 MM (AMRAVATI STEEL)**

Report No : **26280090429GEN2013**
 Date : **02-05-2009**
 Date of Receipt : **29-04-2009**
 Party Ref No : **LETTER DATE: 28.04.2009**

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TEST REPORT

Sl.no	Tests	Test Values	Test Method	Requirement
1.CHEMICAL TEST FOR FE-415				
1	Carbon, %	: 0.21	IS-228 (P-1)	0.30 Max
2	Sulphur, %	: 0.024	IS-228 (P-9)	0.060 Max
3	Phosphours, %	: 0.035	IS-228 (P-3)	0.060 Max
4	Sulphur + Phosphorus, %	: 0.059	IS-228 (P-9&3)	0.11 Max
2.PHYSICAL TEST FOR FE-415				
1	Yield Stress, N/mm ²	: 446.00	IS-1608	415 Min
2	Tensile Strength, N/mm ²	: 610.00	IS-1608	10% MORE THAN ACTUAL STRESS BUT NOT LESS THAN 485
3	% Elongation on Gauge Length 5.65A	: 19.10	IS-1608	14.5 Min
4	Bend Test (3 D at 180°)	: PASSES THE TEST	IS-1786&IS-1599	No Rupture Or Cracks In The Bent Portion.
5	Rebend test	: PASSES THE TEST	IS-1786	No Rupture Or Cracks In The Rebent Portion
6	Weight (kg/mltr)	: 1.517	IS-1786	1.580±5%

Remarks: **THE SAMPLE CONFORMS TO IS-1786-2008 FOR GRADE FE-415 WITH RESPECT TO ABOVE TEST**

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Page 1 of 1

(Signature) .GOEL
 Authorised Signatory

N.A.B.L. / ISO-9001 ACCREDITED LABORATORY

Director



Delhi Test House Test Report- 20 mm



DELHI TEST HOUSE



A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
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 e-mail : info@delhitesthouse.com

ESTD. 1976

Issued to: **The Commercial Manager**
Aar Aar Castings Ltd.,
VIII Jharmajri, Barotiwala, Indl. Area,
Baddi, Dist. Solan (H.P.)

Report No: **26281980429GEN2113**
 Date: **02-05-2008**
 Date of Receipt: **29-04-2009**
 Party Ref No: **LETTER DATE: 28.04.2009**

Sample Description: **TMT-20 MM (AMRAVATI STEEL)**

TEST REPORT

S/No	Tests	Test Values	Test Method	Requirement
1. CHEMICAL TEST FOR FE-415				
1	Carbon, %	0.18	IS-228 (P-1)	0.30 Max
2	Sulphur, %	0.002	IS-228 (P-9)	0.005 Max
3	Phosphorus, %	0.005	IS-228 (P-3)	0.005 Max
4	Sulphur + Phosphorus, %	0.048	IS-228 (P-9&3)	0.11 Max
2. PHYSICAL TEST FOR FE-415				
1	Yield Stress, N/mm ²	442.00	IS-1608	415 Min
2	Tensile Strength, N/mm ²	559.00	IS-1608	10% MORE THAN ACTUAL STRESS BUT NOT LESS THAN 485
3	% Elongation on Gauge Length 5.65A	23.20	IS-1608	14.5 Min
4	Bond Test (3 D at 180°)	passes the test	IS-1786&IS-1599	No Rupture Or Cracks At The Bent Portion
5	Rebond test	passes the test	IS-1786	No Rupture Or Cracks At The Rebond Portion
6	Weight (g/mm ³)	2.445	IS-1786	2.47±0.3%

Remarks: **THE SAMPLE CONFORMS TO IS-1786-2008 FOR GRADE FE-415 WITH RESPECT TO ABOVE TEST**

(Signature)
M. C. GOEL
 Authorised Signatory

N.A.B.L. / ISO-9001 ACCREDITED LABORATORY

Director