



METAL TESTING CENTRE

NABL Accredited Laboratory ISO / IEC : 17025 of 2017
Dept of Science & Technology, Govt. of India

No. 1, Partheeban Street, Ullagaram, Chennai - 600 091.

TEST REPORT



M/s. MDM Engineering & Technologies No. 4, Padasali Street, PKM Cross Street, Melayanambakkam, Chennai-600 095.	Report Date : 27.08.2020.
	Report No. : MTC/20-21/51197.
	Your Ref. / Received Date : DCNO:069/27.08.2020.
	Test Method : IS:9879-1998 (RA2015).
Lab No. : ULR NO. TC-6248 20 0 000 70666 F	Tested Date : 27.08.2020.

DESCRIPTION : 12 X 25 MM SS FLAT SAMPLE.
SPECIFICATION : IS:6911 of 1992 Grade X04Cr17Ni12Mo2 (SS 316)

Chemical analysis	Units	Required	Findings
Carbon	(%)	0.08 max	0.033
Manganese	(%)	2.00 max	1.089
Silicon	(%)	1.00 max	0.300
Sulphur	(%)	0.030 max	0.009
Phosphorus	(%)	0.045 max	0.005
Chromium	(%)	16.00 to 18.00	16.765
Nickel	(%)	10.00 to 14.00	10.283
Molybdenum	(%)	2.00 to 3.00	2.189

REMARKS : Sample *Conforms to Specn.*
IS:6911 of 1992 Grade X04Cr17Ni12Mo2 (SS 316)
as per results reported.

- (i) The test results relate only to the items tested. (ii) Any correction in this certificate not attested shall invalidate this certificate.
(iii) Test Report shall not be reproduced except in full, without written approval of the Laboratory. (iv) Reporting of any discrepancies & collection of tested sample shall be made within 15 days from the date of report.

N. BHOOPALAN
CEO / QM
CHECKED BY

For **METAL TESTING CENTRE**

B. GEETHA
Authorized Signatory
Proprietor



ULR - TC681519000034193F

TEST REPORT

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/26907/1/19-20 Dt-30 Oct 2019
	Your ref./ Date	SL No: 305 Dt-29 Oct 2019
	Our ref./ Date	TOCR :26907/19-20 Dt: 29 Oct 2019
	Date of Testing	30 Oct 2019
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 3.15mm Thk Material: IS 2062 E250A Heat No: C362709 Qty: 1No

1	Chemical Analysis (Fe)	IS 8811-1998	
	Test Parameters	Specified Value	Observation
	Carbon (C) (%)	0.23 max	0.152
	Silicon (Si) (%)	0.40 max	0.020
	Manganese (Mn) (%)	1.50 max	0.885
	Phosphorus (P) (%)	0.045 max	0.012
	Sulphur (S) (%)	0.045 max	0.005
	Carbon Equivalent (CE) (%)	0.42 max	0.305

Remarks : The above chemical composition **MEETS** the requirement of IS 2062 Grade E250 A

Verified By : T K Murugan

For MICROLAB

PL Saravanan-Quality Manager
Authorized Signatory

----- End of the test report -----



NOTE : This report relates only to the particular sample submitted for test • Any correction in the report will invalidate this report • Samples will be destroyed after 15 days from date of completion of tests unless informed by the customer • Any complaints about this report should be communicated in writing within 7 days from the date of receipt of report • This report cannot be reproduced except in full • Sample description is given as described by the customer • Sampling is not carried out by the laboratory.



ULR - TC68152000007716F

TEST REPORT

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/43426/2/19-20 Dt-07 Mar 2020
	Your ref./ Date	Sl.No: 491 Dt-04 Mar 2020
	Our ref./ Date	TOCR :43426/19-20 Dt: 06 Mar 2020
	Date of Testing	07 Mar 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 1mm Material: SS 304 S2 Qty: 1No

1	Chemical Analysis (Fe)	ASTM E1086-2014	
	Test Parameters	Specified Value	Observation
	Carbon (C) (%)	0.03 max	0.026
	Silicon (Si) (%)	1.00 max	0.436
	Manganese (Mn) (%)	2.00 max	1.41
	Phosphorus (P) (%)	0.045 max	0.032
	Sulphur (S) (%)	0.030 max	0.002
	Chromium (Cr) (%)	17.50-20.0	18.23
	Nickel (Ni) (%)	8.00-12.00	8.40

Remarks : The above chemical composition **MEETS** the requirement of IS 6911 X02Cr19Ni10 Grade 304S2

Verified By : T K Murugan

For MICROLAB

PL Saravanan-Quality Manager
Authorized Signatory

----- End of the test report -----



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**TEST REPORT**

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/11757/1/20-21 Dt-21 Sep 2020
	Your ref./ Date	SI.No: 092 Dt-21 Sep 2020
	Our ref./ Date	TOCR :11757/20-21 Dt: 21 Sep 2020
	Date of Testing	21 Sep 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 1mm Thk Qty: 1No

1	Chemical Analysis (Fe)	ASTM E1086-2014	
	<u>Test Parameters</u>	<u>Specified Value</u>	<u>Observation</u>
	Carbon (C)	0.08 max	0.027
	Silicon (Si)	1.00 max	0.292
	Manganese (Mn)	2.00 max	1.78
	Phosphorus (P)	0.045 max	0.042
	Sulphur (S)	0.030 max	0.004
	Chromium (Cr)	17.5-20.00	18.43
	Nickel (Ni)	8.00-10.00	8.23

Remarks : The above chemical composition **MEETS** the requirement of IS 6911 Grade X04Cr19Ni9 (304 S1)

Verified By : T K Murugan

For MICROLAB



PL Saravanan-Quality Manager
Authorized Signatory

----- End of the test report -----

**TEST REPORT**

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/43426/1/19-20 Dt-07 Mar 2020
	Your ref./ Date	SI.No: 491 Dt-04 Mar 2020
	Our ref./ Date	TOCR :43426/19-20 Dt: 06 Mar 2020
	Date of Testing	07 Mar 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 1.6mm Material: SS 304 S2 Qty: 1No

1	Chemical Analysis (Fe)	ASTM E1086-2014	
	Test Parameters	Specified Value	Observation
	Carbon (C) (%)	0.03 max	0.021
	Silicon (Si) (%)	1.00 max	0.444
	Manganese (Mn) (%)	2.00 max	1.39
	Phosphorus (P) (%)	0.045 max	0.026
	Sulphur (S) (%)	0.030 max	0.002
	Chromium (Cr) (%)	17.50-20.0	18.31
	Nickel (Ni) (%)	8.00-12.00	8.10

Remarks : The above chemical composition **MEETS** the requirement of IS 6911 X02Cr19Ni10 Grade 304S2

Verified By : T K Murugan

For MICROLAB



PL Saravanan-Quality Manager
Authorized Signatory

----- End of the test report -----

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Format No: ML/QMS/TR/03

**TEST REPORT**

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/43426/2/19-20 Dt-07 Mar 2020
	Your ref./ Date	SI.No: 491 Dt-04 Mar 2020
	Our ref./ Date	TOCR :43426/19-20 Dt: 06 Mar 2020
	Date of Testing	07 Mar 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 1mm Material: SS 304 S2 Qty: 1No

1	Chemical Analysis (Fe)	ASTM E1086-2014	
	Test Parameters	Specified Value	Observation
	Carbon (C) (%)	0.03 max	0.026
	Silicon (Si) (%)	1.00 max	0.436
	Manganese (Mn) (%)	2.00 max	1.41
	Phosphorus (P) (%)	0.045 max	0.032
	Sulphur (S) (%)	0.030 max	0.002
	Chromium (Cr) (%)	17.50-20.0	18.23
	Nickel (Ni) (%)	8.00-12.00	8.40

Remarks : The above chemical composition **MEETS** the requirement of IS 6911 X02Cr19Ni10 Grade 304S2

Verified By : T K Murugan

For MICROLAB



PL Saravanan-Quality Manager
Authorized Signatory

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Format No: ML/QMS/TR/03

**TEST REPORT**

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/43426/3/19-20 Dt-07 Mar 2020
	Your ref./ Date	SI.No: 491 Dt-04 Mar 2020
	Our ref./ Date	TOCR :43426/19-20 Dt: 06 Mar 2020
	Date of Testing	07 Mar 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 3mm Material: SS 304 S2 Qty: 1No

1	Chemical Analysis (Fe)	ASTM E1086-2014	
	<u>Test Parameters</u>	<u>Specified Value</u>	<u>Observation</u>
	Carbon (C) (%)	0.03 max	0.022
	Silicon (Si) (%)	1.00 max	0.439
	Manganese (Mn) (%)	2.00 max	1.37
	Phosphorus (P) (%)	0.045 max	0.033
	Sulphur (S) (%)	0.030 max	0.003
	Chromium (Cr) (%)	17.50-20.0	18.09
	Nickel (Ni) (%)	8.00-12.00	8.10

Remarks : The above chemical composition **MEETS** the requirement of IS 6911 X02Cr19Ni10 Grade 304S2

Verified By : T K Murugan

For MICROLAB



PL Saravanan-Quality Manager
Authorized Signatory

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Format No: ML/QMS/TR/03

**TEST REPORT**

Customer : M/s.MDM Engineering And Technologies No: 4, Padasalai Street, PKM Cross Street, Melayyanambakkam, Chennai-95	Report No / Date	ML/43426/4/19-20 Dt-07 Mar 2020
	Your ref./ Date	SI.No: 491 Dt-04 Mar 2020
	Our ref./ Date	TOCR :43426/19-20 Dt: 06 Mar 2020
	Date of Testing	07 Mar 2020
	Sample Drawn By	Customer
	Sample Description	Sheet Size: 3mm Material: SS 409M Qty: 1No

1	Chemical Analysis (FeN)	ASTM E1086-2014, ML/VAL/Fe/2013-2014	
	<u>Test Parameters</u>	<u>Specified Value</u>	<u>Observation</u>
	Carbon (C) (%)	0.03 max	0.013
	Silicon (Si) (%)	1.00 max	0.497
	Manganese (Mn) (%)	0.50-1.50	0.950
	Phosphorus (P) (%)	0.040 max	0.024
	Sulphur (S) (%)	0.030 max	0.006
	Chromium (Cr) (%)	10.80-12.50	11.47
	Nickel (Ni) (%)	1.50 max	0.357
	Nitrogen (N)	0.030 max	0.016

Remarks : The above chemical composition **MEETS** the requirement of SS 409M

Verified By : T K Murugan

For MICROLAB



PL Saravanan-Quality Manager
Authorized Signatory

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