Technology Development Centre-Consumables, Ador Welding Ltd, Pune Accredited by NABL

WELDERS TO THE NATION SINCE 1951

ador WELDING

(Formerly Advani-Oerlikon Ltd.)

TESTING FACILITIES

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

TECHNOLOGY DEVELOPMENT CENTRE-CONSUMABLES (TDC- CONSUMABLES), ADOR WELDING LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Akurdi Circle,Chinchwad, Pune, Maharashtra

in the field of

TESTING

Certificate Number TC-6547

Issue Date 15/11/2017 **Valid Until** 14/11/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Program Director

8907697010003000479

Anil Relia
Chief Executive Officer

A. Chemical Tests

- Analysis of Ferrous Metals by Optical Emission Spectrometer (OES) - NABL Accredited
- Analysis of Non Ferrous Metals like Nickel, Aluminium, Copper by Optical Emission Spectrometer (OES)
- Unknown Sample to Confirm Grade of Ferrous, Nickel, Aluminium, Copper Base Metals
- Analysis of Trace Elements in Metals and Minerals by ICP-OES
- Analysis of Powder Materials like Metal Powders, Ferro Alloys, Minerals and Ores by Wavelength Dispersive XRF Spectrometer
- Analysis of Metal Powders, Ferro Alloys, Minerals and Ores by Conventional Wet Analysis
- Analysis of Sample for Grade Identification / Segregation by PMI (Positive Material Identification)
- Analysis of Carbon and Sulphur by Combustion Method
- Analysis of Oxygen and Nitrogen by Combustion Method
- Miscellaneous Tests (Diffusible Hydrogen, Moisture @ 120°C & 1000°C, Loss on Ignition, etc)

B. Mechanical Tests

- Tensile Test at Room Temp (upto 25mm Thick)) - NABL Accredited
- Charpy V- Notch Impact Tests (from Room Temperature upto -196°C) - NABL Accredited
- Hardness Test (Rockwell, Brinell & Vickers) - NABL Accredited
- Surface Roughness Test (for Wires, Strips or any metal surface finish) Wire Tensile (8mm to 1.0mm)
- Bend Test
- Stress Rupture / Creep Rupture Tests (Min 100 hrs to Max as per request)

C. Metallography Tests

- Micro Examination with Photograph
- Macro Examination with Photograph

D. Corrosion Tests

- IGC Practice A as per ASTM A262
- IGC Practice C as per ASTM A262 (upto 5 Boils)
- IGC Practice E as per ASTM A262 (upto 15 Hrs)
- IGC Practice B and F as per ASTM A262

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

TECHNOLOGY DEVELOPMENT CENTRE-CONSUMABLES (TDC- CONSUMABLES), ADOR WELDING LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Akurdi Circle,Chinchwad, Pune, Maharashtra

in the field of

TESTING

Certificate Number TC-6547

Issue Date 15/11/2017 **Valid Until** 14/11/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Program Director

8907697010003000479

Anil Relia
Chief Executive Officer

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory Technology Development Centre-Consumables (TDC- Consumables), Ador Welding Limited, Akurdi Circle Chinchwad, Pune, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6547

Validity 15.11.2017 to 14.11.2019 **Last Amended on** --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		CHEMICAL TESTING		
I.	**METALS & ALLOYS**			
1.	**Carbon Steel**	Carbon	IS 8811: 1998 (RA 2012) ASTM E415: 2014	0.002% to 1.0%
		Silicon		0.002% to 1.0%
		Manganese		0.1% to 2.0%
		Sulphur		0.001% to 0.10%
		Phosphorous		0.001% to 0.05%
		Chromium		0.01% to 0.20%
		Nickel		0.002% to 0.10%
		Cobalt		0.002% to 0.10%
		Niobium		0.003% to 0.06%
2.	**Alloy Steel**	Carbon	IS 8811: 1998 (RA 2012) ASTM E415: 2014	0.002% to 1. 0%
		Silicon		0.002% to 2.0%
		Manganese		0.001% to 2.50%
		Sulphur		0.001% to 0.10%
		Phosphorous		0.001% to 0.05%
		Chromium		0.002% to 3.0%
		Nickel		0.002% to 5.50%
		Molybdenum		0.02% to 2.0%
		Copper		0.001% to 1.00%
		Vanadium		0.001% to 0.50%
		Titanium		0.001% to 0.050%
		Niobium		0.003% to 0.060%
		Aluminium		0.001% to 0.50%
		Cobalt		0.0015% to 0.10%
3.	**Stainless Steel**	Carbon	ASTM E 1086: 2014 IS 9879: 1998 (RA 2015)	0.002% to 0.25%
		Silicon		0.02% to 1.0%
		Manganese		0.01% to 2.0%
		Sulphur		0.001% to 0.065%
		Phosphorous		0.001% to 0.05%
		Chromium		8.0% to 26.0%

Mallika Gope
Convenor

N. Venkateswaran
Program Director

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory	**Technology Development Centre-Consumables (TDC- Consumables), Ador Welding Limited, Akurdi Circle Chinchwad, Pune, Maharashtra**	
Accreditation Standard	**ISO/IEC 17025: 2005**	
Certificate Number	**TC-6547**	**Page 2 of 3**
Validity	**15.11.2017 to 14.11.2019**	**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Nickel		0.10% to 21.0%
		Molybdenum		0.01% to 3.0%
		Copper		0.01% to 0.05%

Mallika Gope
Convenor

N. Venkateswaran
Program Director

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory	**Technology Development Centre-Consumables (TDC- Consumables), Ador Welding Limited, Akurdi Circle Chinchwad, Pune, Maharashtra**	
Accreditation Standard	**ISO/IEC 17025: 2005**	
Certificate Number	**TC-6547**	**Page 3 of 3**
Validity	**15.11.2017 to 14.11.2019**	**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		MECHANICAL TESTING		
I.	**MECHANICAL PROPERTIES OF METALS**			
1.	**Ferrous and Non Ferrous Materials and Welds**	Tensile strength	ASTM E8/E8M-16a IS/1608:2005 (RA 2017)	1 kN to 400 kN
		Yield strength		1 kN to 400 kN
		% Reduction in area		1% to 80%
		% Elongation		1% to 60%
		Charpy (V Notch) Impact [Room temperature to (-) 196°C]	ASTM E23-16	2 J to 324 J
		Rockwell Hardness	ASTM E18-16 IS 1586(Part 1): 2012	20 HRC to 70 HRC 45 HRBW to 100 HRBW
		Brinell Hardness	ASTM E10-16 IS 1500(Part 1): 2013	100 HRBW to 600 HBW (10mm/3000 kg)
		Vickers Hardness	IS 1501 (Part 1): 2013 ASTM E384: 2016	100 HV to 800 HV (HV5, HV30)

Mallika Gope
Convenor

N. Venkateswaran
Program Director