



NABL

National Accreditation Board for Testing and Calibration Laboratories

Department of Science & Technology, India

CERTIFICATE OF ACCREDITATION

NORTHLAB (INDIA) PVT. LTD.

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

CHENNAI

in the field of

THERMAL CALIBRATION

Certificate Number C-0197

Issue Date 24/04/2008

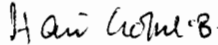
Valid Until 23/04/2010

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

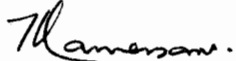
Signed for and on behalf of NABL


Alok Jain

Convenor


Dr B. Hari Gopal

Director


Dr T. Ramasami

Chairman



रा.प्र.प्र.बो.

राष्ट्रीय परीक्षण और अंशशोधन
प्रयोगशाला प्रत्यायन बोर्ड
विज्ञान एवं प्रौद्योगिकी विभाग, भारत

प्रत्यायन प्रमाण-पत्र

नार्थलैब (इण्डिया) प्राइवेट लिमिटेड

का मूल्यांकन और प्रत्यायन निम्न मानक के अनुसार

आई.एस.ओ./आई.ई.सी. 17025:2005

“परीक्षण एवं अंशशोधन प्रयोगशालाओं की सक्षमता की सामान्य अपेक्षाएँ”

चेन्नई

में स्थित इसकी सुविधाओं के लिए

तापीय अंशशोधन

के क्षेत्र में किया गया।

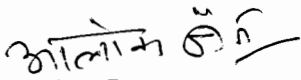
प्रमाण-पत्र संख्या अ-0197

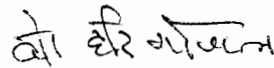
जारी करने की तिथि 24/04/2008

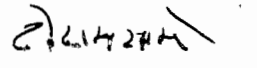
वैधता की तिथि 23/04/2010

यह प्रमाण-पत्र उपर्युक्त मानक तथा राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड की अतिरिक्त अपेक्षाओं का निरंतर संतोषप्रद अनुपालन किए जाने पर अनुबंध में निर्दिष्टानुसार प्रत्यायन के क्षेत्र के लिए वैध रहेगा।

रा.प्र.प्र.बो. की ओर से हस्ताक्षरित


आलोक जैन
संयोजक


डा. बो. हरि गोपाल
निर्देशक


डा. टी. रामसामी
अध्यक्ष



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SCOPE OF ACCREDITATION

| | | | |
|--------------------|-------------------------------------|-------------|------------|
| Laboratory | NorthLab (India) Pvt. Ltd., Chennai | Issue Date | 24.04.2008 |
| Field | Thermal Calibration | Valid Until | 23.04.2010 |
| Certificate Number | C-0197 | Page | 1 of 3 |
| Last Amended on | - | | |

| Quantity Measured / Instrument | Range | * Best Measurement Capability (\pm) | Remarks |
|--------------------------------|-------|---|---------|
|--------------------------------|-------|---|---------|

AT LABORATORY

| | | | |
|--|-----------------|--|--|
| 1. Temperature RTD Sensor with / without Indicator, Thermocouple Sensor with/without Indicator, Thermistor Sensor with/without Indicator, Glass Thermometer, Temperature Baths, Ovens, Furnaces, Freezers, Capillary Thermometers, Bi-Metallic Thermometers, Data Loggers, Recorders, Temperature Switch, Temperature Transmitter. | -80°C ~ -20°C | ± 0.37 °C | By using Liquid Bath/Std PRT(5627-12) / HP 3547A 6 1/2 DMM) |
| | -20°C ~ 80°C | ± 0.06 °C | By using Hart Bath/Std PRT(5627-12) / HP 3547A 6 1/2 DMM) |
| | 80°C ~ 300°C | ± 0.38 °C | By using Silicon Oil Bath/Std PRT(5626) / 6 1/2 DMM(3547A) |
| | 300°C ~ 660°C | ± 0.43 °C | By using Dry Block/Std PRT(5626) / 6 1/2 DMM(3547A) |
| | 660°C ~ 1100°C | ± 1.8 °C | By using Dry Block Calibrator/Std Type-S TC / 6 1/2 DMM(3547A) |
| 1100°C ~ 1200°C | ± 3.2 °C | By using Dry Block Calibrator/Std Type-S TC / 6 1/2 DMM(3547A) | |
| 2. Infrared Thermometers | 50°C ~ 200°C | ± 3.3 °C | By using Infrared Thermometer (Raytek) / Black Body Calibrator (Hart) |
| | 200°C ~ 1100°C | ± 3.0 °C | By using Std S-Type T/C (Isotech) / Dry Block Calibrator (TC 1200) / 6 1/2 DMM (3457A) |
| | 1100°C ~ 1200°C | ± 4.2 °C | By using Std S-Type T/C (Isotech) / Dry Block Calibrator (TC 1200) / 6 1/2 DMM (3457A) |

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| Quantity Measured / Instrument | Range | * Best Measurement Capability (\pm) | Remarks |
|---|-------------------|---|--|
| 3. Humidity | | | |
| Digital/Analog Thermohygrometers, Thermohydrographs, | 5 %r.h, 10%r.h. | ± 0.3 % r.h | By using Humidity Standard Solution (Rotronic AG) |
| Digital / Analog Hygrometer, Hygrographs, Humidity Sensors, Datalogger and Transmitter | 35 %r.h | ± 0.6 % r.h | By using Humidity Standard Solution (Rotronic AG) |
| | 50 %r.h | ± 1.0 % r.h | By using Humidity Standard Solution (Rotronic AG) |
| | 80%r.h., 95 %r.h | ± 1.2 % r.h | By using Humidity Standard Solution (Rotronic AG) |
| | 30%r.h ~ 96 % r.h | ± 2.5 % r.h | By using Rotronic Humidity Probe with Humidity Chamber |
| AT SITE | | | |
| Rtd Sensor With / Without Indicator, Thermocouple Sensor With/Without Indicator, Thermistor Sensor With/Without Indicator, Glass Thermometer, Temperature Baths, Ovens, Furnaces, Freezers, Capillary Thermometers, Bi-Metallic Thermometers, Data Loggers , Recorders , Temperature Switch, Temperature Transmitter. | -80°C ~ -20°C | ± 0.36 °C | By using Liquid Bath/Std PRT(5627-12) / HP 3547A 6 1/2 DMM) |
| | -20°C ~ 80°C | ± 0.06 °C | By using Hart Bath/Std PRT(5627-12) / HP 3547A 6 1/2 DMM) |
| | 80°C ~ 300°C | ± 0.36 °C | By using Silicon Oil Bath/Std PRT(5626) / 6 1/2 DMM(3547A) |
| | 300°C ~ 660°C | ± 0.41 °C | By using Dry Block/Std PRT(5626) / 6 1/2 DMM(3547A) |
| | 660°C ~ 1100°C | ± 1.8 °C | By using Dry Block Calibrator/Std Type-S TC / 6 1/2 DMM(3547A) |

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| Quantity Measured / Instrument | Range | * Best Measurement Capability (\pm) | Remarks |
|---|-------------------|---|--|
| | 1100°C ~ 1200°C | ± 3.3 °C | By using Dry Block Calibrator/Std Type-S TC / 6 1/2 DMM(3547A) |
| 5. Humidity | | | |
| Digital/Analog Thermohygrometers / Thermohygrographs Digital / Analog Hygrometer / Hygrographs , Humidity Sensor / Datalogger/Transmitter | 5 %r.h, 10%r.h. | ± 0.3 % r.h | By using Humidity Standard Solution(Rotronic AG) |
| | 35 %r.h | ± 0.6 % r.h | By using Humidity Standard Solution(Rotronic AG) |
| | 50 %r.h | ± 1.0 % r.h | By using Humidity Standard Solution(Rotronic AG) |
| | 80%r.h., 95 %r.h | ± 1.2 % r.h | By using Humidity Standard Solution(Rotronic AG) |
| | 10%r.h ~ 96 % r.h | ± 2.5 % r.h | By using Humidity Probe (Hygroclib S1) |
| 6. Humidity Profiling | 10%r.h ~ 96 % r.h | ± 3.4 % r.h. | By using Humidity Probe (Hygroclib S1) |
| Humidity Chamber Environmental Chamber | | | |
| 7. Thermal Profiling | -80°C ~ 200°C | ± 2.2 °C | By using Keithley Data Logger and Thermocouples(KE2700) |
| Freezer,Ovens / Furnace,Bath,Environmental Chamber | 200°C ~ 600°C | ± 2.1 °C | By using Keithley Data Logger and Thermocouples(KE2700) |
| | 600°C ~ 1100°C | ± 4.0 °C | |
| | 1100°C ~ 1200°C | ± 5.9 °C | |

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

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