

# Accreditation Certificate

## VWR International Ltd

Orion Business Campus, Northwest Business Park, Ballycoolin, Blanchardstown,  
Dublin 15

**Calibration Laboratory**

**Registration number: 018C**

is accredited by the Irish National Accreditation Board (INAB) to undertake calibration as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2<sup>nd</sup> Edition

*"General Requirements for the Competence of Testing and Calibration Laboratories"*  
*(This Certificate must be read in conjunction with the annexed Schedule of Accreditation)*

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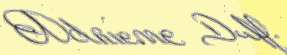
Date of award of accreditation: 03:04:2002

Date of last renewal of accreditation: 29:06:2011

Expiry date of this certificate of accreditation: 29:06:2016

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This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: 

Dr Adrienne Duff

Chairperson: 

Mr Tom O'Neill

Issued on 29 June 2011

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

# Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:  
Category A, B

## VWR INTERNATIONAL LTD

### Balance Optical Temperature Calibration Laboratory

*Initial Accreditation Date :* 20-September-1991 - Balance  
29-September-1995 - Optical  
29-September-1995 - Temperature

*Postal Address:* Orion Business Campus  
Northwest Business Park  
Ballycoolin  
Blanchardstown  
Dublin 15

*Telephone:* +353 (1) 8822222

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*E-mail:* calibration@ie.vwr.com

*Contact Name:* Mr David Hoban

*Facilities:* Public calibration service

# Schedule of Accreditation



Permanent Laboratory:  
 Category A, B

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO/IEC 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

## Calibration Categories:

- Category A:** Permanent calibration laboratory where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration that is performed on site by individuals and organisations that do not have a permanent calibration laboratory. Calibration may be performed using
- (a) portable test equipment
  - (b) a site laboratory
  - (c) a mobile laboratory or
  - (d) equipment from a mobile or site laboratory

## Standard Specification or Calibration Procedure Used:

The standard specification or calibration procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

## Glossary of Terms

### Facilities:

- Public calibration service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration:** Unavailable for public calibration more often than not.

Laboratory users wishing to obtain assurance that calibration results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate. Users should contact the laboratory directly to ensure that this schedule of accreditation is current. INAB will on request verify the status and scope.

# Scope of Accreditation



VWR International Ltd

Site Laboratory:  
Category A, B

## Balance Calibration Laboratory

(Nominal temperature for calibration work: 23±5°C)

| INAB Classification number (P9) | Instrument                      | Range of measurement | Calibration and measurement capability expressed as an uncertainty * | Method and remarks                        |
|---------------------------------|---------------------------------|----------------------|--|---|
| 121                             | Calibration of Weighing Devices |                      |  | Documented in-house method:<br>CAL PRO 11 |
| .01                             | Precision Laboratory Balances   | 1mg - 5g             | ± 0.03 mg  | OIML Class E2 Weights                     |
|                                 |                                 | 5g - 20g             | ± 0.04 mg  |   |
|                                 |                                 | 20g - 100g           | ± 0.08 mg  |   |
|                                 |                                 | 100g - 400g          | ± 0.31 mg  |   |
| .02                             | Industrial Balances             | 1g - 100g            | ± 0.60 mg  | OIML Class F1 Weights                     |
|                                 |                                 | 100g - 600g          | ± 1.08 mg  |   |
| .03                             | Industrial Weighing             | 600g - 1000g         | ± 1.63 mg  |   |
|                                 |                                 | 1kg - 5kg            | ± 9.57 mg  |   |
|                                 |                                 | 5kg - 20kg           | ± 65.3 mg  |   |
|                                 |                                 | 20kg - 30kg          | ± 73.7 mg  |   |
|                                 |                                 | 1g - 1000g           | ± 4.62 mg  |   |
|                                 |                                 | 1kg - 5kg            | ± 23.6 mg  | OIML Class F2 Weights                     |
|                                 |                                 | 5kg - 20kg           | ± 91.8 mg  |   |
|                                 |                                 | 20kg - 60kg          | ± 281.0 mg   |   |
|                                 |                                 | 60kg - 100kg         | ± 462.0 mg   |   |
|                                 |                                 | 50kg - 140kg         | ± 2.2 grams  |   |
|                                 |                                 | 140kg - 310kg        | ± 3.0 grams  | OIML Class M1 Weight<br>F2 Class Weights  |

**\* Notes:**

1. In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.
2. Calibration and measurement capability expressed as an uncertainty (±) to be reported in compliance with EA-4/02, "Expression of the Uncertainty of Measurement in Calibration".



# Scope of Accreditation



VWR International Ltd

Site Laboratory:

Metrology Calibration Laboratory

Category A,B

| INAB Classification number (P9)<br>Instrument            | Range of measurement | Calibration and measurement capability expressed as an uncertainty * | Method and remarks   |
|--|----------------------|--|--|
| 151 Speed Measuring Devices<br>.99 Including centrifuges | 0 rpm to 30,000 rpm  | ±2.6 rpm   | Documented in-house method:<br>Optical measurement of rotation<br>CAL PRO 18 |

# Scope of Accreditation



VWR International Ltd

Site Laboratory:  
Category A, B

## Optical Calibration Laboratory

(Nominal temperature for calibration work: 23±5°C)

| INAB Classification number (P9) | Instrument                                 | Range of measurement   | Calibration and measurement capability expressed as an uncertainty * | Method and remarks                                     |
|---------------------------------|--|--|--|--|
| 403                             | Polarimetric Devices                       |  |  | Using quartz reference standards                       |
| .01                             | Polarimeters                               | ±45°   | ±0.0021°   | CAL PRO-7  |
| 460                             | Spectrophotometry                          |  |  | Using glass on liquid reference standards              |
| .01                             | Spectrophotometers<br><i>Transmittance</i> | 0 to 10 %T at 550,650nm<br>10 to 60 %T at 550,650nm<br>60 to 100 %T at 550,650nm | ±0.14 %T<br>±0.29 %T<br>±0.31 %T                                     | CAL PRO-2  |
|                                 | UV-VIS<br><i>Wavelength</i>                | 200 to 800nm<br>800 to 900nm   | ±0.31nm<br>±0.64nm   | Using glass on liquid reference standards<br>CAL PRO-2 |

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# Scope of Accreditation



VWR International Ltd

Permanent Laboratory:  
Category A

## Temperature Calibration Laboratory

(Nominal temperature for calibration work: 23±5°C)

| INAB Classification number (P9) Instrument   | Range of measurement | Calibration and measurement capability expressed as an uncertainty * | Method and remarks                      |
|--|----------------------|--|---|
| 501 Calibration of Temperature Measuring Equipment<br>.41 Digital temperature indicator system:<br><i>Digital Thermometers with probes</i> | -40°C to +200°C      | ±0.025°C plus Resolution of Indicator                                | Comparison in liquid bath<br>CAL PRO 15 |
|  |                      |  |   |

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# Scope of Accreditation



## Temperature Calibration Laboratory

(Nominal temperature for calibration work: 23±5°C)

| INAB Classification number (P9)<br>Instrument             | Range of measurement                | Calibration and measurement capability expressed as an uncertainty * | Method and remarks  |
|---|-------------------------------------|--|---|
| <b>510 Temperature Control Enclosures</b>                 |                                     |  | Single and multi-point time dependent monitoring and profiling              |
| .01 Ovens & Baths<br>Incubators & Sterilising             | - 70°C to 180°C using Pt100 probes  | ±0.10°C  |   |
| .02 Ovens   | 50°C to 260°C using thermocouples   | ±0.45°C  |   |
| .03 Autoclaves  | 260°C to 325°C using thermocouples  | ±0.60°C  |   |
| .04 Industrial Freezers                                   | -70°C to -90°C using Pt100          | ±0.25°C  |   |
| .01 Furnaces  | 250°C to 1100°C using thermocouples | ±5.0°C   |   |
| <i>Time Interval</i>                                      | 0 to 120 mins                       | ±0.10 sec  | Single point time dependent monitoring<br>CAL PRO 3, 4 & 5                  |
| <b>560 Hygrometry</b>                                     |                                     |  | Single and multi-point time dependent monitoring and profiling<br>CAL PRO 3 |
| .30 Environmental Chambers                                | 25 to 40°C                          | ±0.10°C  |   |
| <i>Stability Cabinets</i>                                 | 20 to 95%RH                         | ±2.2%RH  |   |
| <i>Climatic Cabinets</i><br><i>Environmental Cabinets</i> |                                     | ±2.2%RH  |   |

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