

Refractometer

Calibration Standards

- Sealed containers for quality assurance
- Supplied with Certificate of RI
- Long shelf life

A versatile, easy to use range of liquid and solid reference standards for checking the calibration of all types of manual, semi-automatic and fully automatic refractometers.

Build confidence into your routine laboratory or quality control procedures by regularly checking the calibration using a convenient liquid or solid reference material from our 'Standard' or 'Supplied to Order' ranges.

Ideal for all applications

These reference calibration standards will appeal to Analysts and Quality Control Managers in any industry who need a quick, reliable method for checking the calibration of their refractometers.

Typical applications include -

- Soft Drinks
- Food Processing
- Fine Chemical Manufacture
- Cosmetics
- Adhesives
- Mineral Oil Processing
- Vegetable Oil Processing

Liquid Reference Standards

- Available as single standards or in sets to suit your analytical needs.

- Standard range, choice of reference liquid volumes: 7ml or 500ml (4 x 125ml).

Supplied to Order reference standards also available in other volumes. Contact us with details of your requirements.



Master Range

Refractive Index (RI)	Accuracy
1.4020 at 20°C	± 0.00005
1.4900 at 20°C	± 0.00005
1.6300 at 25°C	± 0.00005

Supplied in 7ml sealed glass bottles. Individually labelled with value, accuracy and thermal coefficient of refractive index. Supplied with certificate of traceability to NIST (U.S.A. National Institute of Standards Technology).

Standard Range

RI at 25°C	Brix at 25°C (approx.)	Accuracy
1.3500	12.0	± 0.0002 RI
1.3700	25.0	± 0.0002 RI
1.4200	50.0	± 0.0002 RI

Supplied in 7ml sealed glass bottles. Individually labelled with value, accuracy and thermal coefficient of refractive index. Supplied with certificate of traceability to NIST (U.S.A. National Institute of Standards Technology).

Refractometer Calibration Standards

'Supplied to Order' Standards

Available in any value from 1.300 RI to 1.395 RI in 0.005 RI increments, from 1.400 RI to 1.700 RI in increments of 0.002 RI and from 1.7050 RI to 1.8000 RI in 0.005 RI increments. Supplied with certificate of traceability to NIST standards.

Long Life - Fluids from the above ranges vary from very stable to slightly volatile, depending upon the RI value. With careful handling and storing, they will last for a period of years.

H A Range

Designed especially for industries such as soft drinks industry, these bulk 500ml (4 x 125ml sealed bottles) volume reference standards are ideal for use in automatic refractometers having pumped sampling systems. Values are given in Brix units (the most common measurement scale used in this industry) and also in Zeiss units.

Brix at 20°C	Zeiss at 20°C	Accuracy
9.5	51.8	± 0.016 Brix (± 0.08 Zeiss)
12.0	61.9	± 0.016 Brix (± 0.08 Zeiss)

Note: Lifetime at least 12 months from manufacture.

'Supplied to Order' H A Reference Standards

Any value from 0 to 15.0 Brix can be supplied in the 4 x 125ml sealed packing to order.

Temperature Control

When using these calibration standards, accurate readings can only be obtained if the temperature at which the reading is taken is carefully controlled. The refractometer should always be connected to a circulating temperature controlled bath of sufficient accuracy and the instrument must be allowed to come to a constant temperature before a reading is taken. If however, the instrument has temperature control by Peltier Cell then there is no need for an external water bath.

Solid Reference Standards

Choose from three widely used standards:

Lithium Fluoride	1.3921 RI at 20°C
Calcium Fluoride	1.4339 RI at 20°C
Silica	1.4584 RI at 20°C

Accuracy: published data gives accuracy to at least the 5th decimal place of RI. Achievable accuracy will depend upon the specification of the refractometer being checked.

Supplied as 10mm dia. x 5mm thick (approx.) discs for easy handling. Full details and procedures for the use of solid test pieces are provided with the test pieces together with recommendations of which contact fluids are suitable for each application.

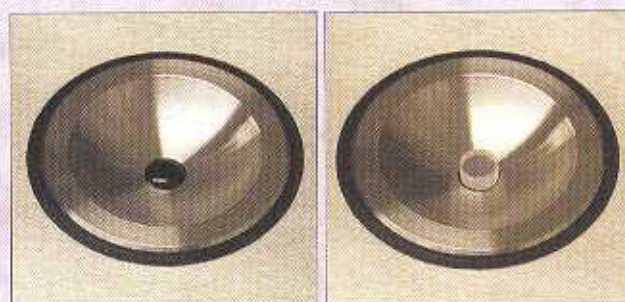
This size is ideal for use with the Index Instruments full range of automatic refractometers. Other sizes can be provided on request.

All standard test pieces are supplied with a statement of refractive index.

Glass solid test pieces are available in many different values to order, the accuracy will however, depend upon the material.

Health and Safety

Appropriate safety precautions and equipment should be observed when handling liquid calibration standards and contact fluids used with solid calibration standards. If in doubt, consult your safety representative or officer before handling.



Liquid Calibration Standard

Solid Calibration Standard

General: Since the conditions of use are beyond our control, the value of the reference solution is warranted only if the bottle seal is not broken.

INDEX INSTRUMENTS LTD

Bury Road Industrial Estate, Ramsey, Huntingdon
Cambridgeshire PE26 1NF

Tel: +44 (0)1487 814313

Fax: +44 (0)1487 812789

E-mail: sales@indexinstruments.com

Web-site: www.indexinstruments.com