

## Abbe 60 DR & 95 Refractometers

DIRECT READING MODELS FOR ACADEMIA, RESEARCH AND GENERAL USE

More stringent requirements of quality control and, in some cases, legislation, mean that greater accuracy is being demanded of refractometers. The Abbe 60 Direct Reading models, available in two measuring ranges, have been designed to meet these requirements.

The latest designs incorporate an externally mounted LED light source for sample illumination. A wavelength compensation device is used to 'achromatise' to the mean sodium wavelength (589.3nm). Refractive Index can be read directly from a scale divided to 0.001 allowing for estimation to ±0.0001. Temperature control can be achieved by circulation of water; prism temperature is displayed in digital form.

Direct reading models are particularly suitable for the measurement of sugar solutions and sugar content of food and drink products. They can also be used to determine the refractive index of pure liquids, solutions and formulated products including; flavourings, fragrances, oils and fats, solvents, plastics, resins, adhesives and many other industrial chemicals.

Instruments come complete with external power supply, standardisation plate and contact liquid, and instructions for use. Limited warranty is 24 months.

- Dual scale
- Refractive Index and °Brix
- Integral LED light source



a xylem brand

## **Direct Reading Abbe 60 Refractometers**











Specifications	60DR	6095
Range (Refractive Index / °Brix)	1.30 - 1.74 / 0-95	1.30-1.535 / 0-95
Scale divison (Refractive Index)	0.001	0.001
Scale division (°Brix)	0.5	0.2 (0-50) 0.1 (50-95)
Precision (scale / by estimation)	±0.001 RI (±0.0001 RI) (±0.25 °Brix)	±0.2 (0-50) ±0.1 (50-95)
Operating temperature	5–75 °C	
Temperature resolution	0.1°C	
Ambient temperature	5-40°C	
Power supply	110-230V~, 50/60Hz	

## **Order Codes**

Code	Description
10-99	Abbe 60DR Refractometer supplied with calibration plate, contact liquid, power supply and instruction manual
10-03	Abbe 6095 Refractometer supplied with calibration plate, contact liquid, power supply and instruction manual
10-42	Volatile liquid cell
10-58	Divided cell for differential measurement
10-43	Contact liquid (monobromonaphalene) for test plates and solid samples with RI up to 1.65 Quantity 6ml
10-61	Contact liquid (methylene iodide) for test plates and solid samples with RI up to 1.74 Quantity 3 ml
10-62	Contact liquid (SMI) for solid samples with RI to 1.79 Quantity 10 ml
10-69	Abbe filter eye cap for use with spectral sources using appropriate interference filter. Manufactured to order - wavelngth defined at point of order
10-44	Glass test plate - approx. 1.5222 Rl
10-46	Silica test plate - 1.45839 RI. Certificate of Verification showing traceabiltty available at extra cost
10-49	Polarising eyepiece for bi-refringent samples
10-59	Glass substrate for set resin samples (requires use of contact liquid code 10-43)
10-660	Abbe utility software (also available from www.bellinghamandstanley.com at no cost)
13-395	Spare desiccator
55-104	Spare power supply for Abbe refractometer (110-230V~, 50/60Hz)

The ABBE RERACTOMETER derives its name from the 19th Century physicist and father of modern optical technology, Ernst Abbe (1840-1905). He was the co-founder of the Carl Zeiss Jena Optical Company and Schott Glasswerk.

Abbe designed an instrument for measuring dispersion which became the precursor for a refractometer – the so-called Abbe Refractometer

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