

## Refractive Index Certified Reference Materials

Manufactured by Paragon Scientific Ltd

Paragon Scientific have launched a new range of **Refractive Index Certified Reference Materials (CRMs)** which are ideal for verification and calibration of temperature-controlled refractometers, with each CRM providing certified values for refractive index measurements at 20 °C, 25 °C and 30 °C.

With nearly 25 years' experience in the production of Certified Reference Materials (CRMs), Paragon Scientific is recognised internationally as a world-leading producer, synonymous with quality and first-class customer service. Their breadth of experience includes producing Certified Reference Materials for a wide-range of parameters, including Viscosity, Density, Refractive Index, Colour, Flash Point, Total Acid Number, Total Base Number and more.



Paragon Scientific is already well-established in the production of **Sucrose Brix / RI Standards** and have recently launched a **Multi-Parameter Certified Reference Material for Refractive Index and Density**. Alongside this, Paragon Scientific can now supply single-parameter **Certified Reference Materials** for the verification of Refractive Index measurements.

### Importance of Refractive Index:

Refractive Index is measured for many reasons and is useful for multiple applications. It is a parameter that provides valuable information into determining the concentration of liquid mixtures (i.e. any dissolved mixtures), as well as provide information into the sample's purity and clarity. This is useful for identification and quality control purposes.

Many industries will use refractometers for quality control purposes, particularly within food and beverage industries, from portable hand-held machines to benchtop-based refractometers such as Abbe or automatic digital refractometers. Temperature controlled refractometers are ideal for high-precision refractive index measurements. These are ideal for food, beverage, pharmaceutical, medical and petrochemical industries and applications.

## What We Can Offer:

Paragon Scientific's range of **Refractive Index Certified Reference Materials (CRMs)** provide certified values for refractive index measurements at 20 °C, 25 °C and 30 °C and cover a wide range of calibration needs, with certified values ranging from 1.3325 through to 1.6556 at 25 °C (Nominal RI Values noted).

Each Refractive Index CRM provides traceability of measurement to recognised national standards, and to units of measurement realised at the **National Physics Laboratory (NPL)** or other recognised national standards laboratories. All refractive index values are traceable to **National Institute Standards and Technology (NIST)**, and each CRM provides low levels of uncertainty, ensuring maximum accuracy of data at hand.

All materials are supplied with a unique batch number, expiry date, and certified data for refractive index at 20 °C, 25 °C and 30 °C. The shelf life of each material is 12 months, and full traceability and uncertainties are stated on the certificate provided.

Paragon Scientific's Refractive Index CRMs are available in single 10 mL volume tamper-evident glass bottles or can be ordered as a set of 5 per material (includes set of disposable pipettes). Both options allow users to take ample sample readings for their verification needs.

## Key Benefits:

- Refractive Index Certified Reference Materials at 20 °C, 25 °C and 30 °C
- All measurements are fully traceable to NIST and international protocols
- Low levels of uncertainty, ensuring maximum accuracy of data at hand and dependable results
- Available in single 10 mL volume tamper-evident glass bottles or as a multi-pack of 5 per material (includes set of disposable pipettes)
- 12 month shelf life
- Manufactured in the United Kingdom
- Available from stock for immediate dispatch

Part Number	Description
<b>PS-RI-01</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.3325 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-01K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.3325 at 25 °C), in Tamper-Evident Glass Vials, 5 x 10 mL
<b>PS-RI-02</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.3891 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-02K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.3891 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-03</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4023 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-03K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4023 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-04</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4196 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-04K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4196 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-05</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4206 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-05K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4206 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-06</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4573 at 25 °C), in Tamper-Evident Glass Vial, 10 mL

<b>PS-RI-06K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4573 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-07</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4941 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-07K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.4941 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-08</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.5349 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-08K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.5349 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-09</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.5440 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-09K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.5440 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL
<b>PS-RI-10</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.6556 at 25 °C), in Tamper-Evident Glass Vial, 10 mL
<b>PS-RI-10K</b>	Refractive Index Certified Reference Material at 20 °C, 25 °C and 30 °C (Nominal RI Value 1.6556 at 25 °C), in Tamper-Evident Glass Vial, 5 x 10 mL

## Why choose Paragon?

All of Paragon's products have been manufactured to the highest certified integrity and premium quality on a global level. Every certificate provides low levels of uncertainty of measurement and is fully traceable to international methodology. With an excellent reputation across multiple industries, Paragon provides excellent customer service, technical support and prompt delivery to all its customers.

Paragon Scientific has always sought to certify its products to the highest metrological level it can achieve, this has been one of its key objectives since the company was founded and has set them apart from other reference material producers.

Integrity and Quality has and always will be at the forefront for Paragon Scientific, which is evidenced by their accreditations to ISO 17025 and ISO Guide 34 under UKAS and the long-standing relationships with end-users and the worldwide partners they work with. Integrity and Quality are embedded across all their business activities and provides the framework in how they approach new ideas and operate.

**For further information, please feel free to contact our team at [sales@paragon-sci.com](mailto:sales@paragon-sci.com) or contact your local representative.**

