Paragon Scientific Ltd

Certified Reference Materials

Viscometers

Integrity

Laboratory

Quality

Reagents

Confidence

Calibration Services

Calibration Standards

Products & Services

Quality. Integrity. Confidence

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Setting New Standards in Reference Materials

Paragon Scientific Limited specialise in the production of a fully comprehensive range of premium Certified Reference Materials (CRMs) and Standards.

Founded in 1994, we have developed an international reputation synonymous with quality, prompt delivery, affordability and first class customer service. We are committed to developing, manufacturing and supplying the highest quality standards and reference materials available in the marketplace. We believe that this approach combined with key attention to customer service, technical support and prompt delivery is key to our business success.

A combination of advanced manufacturing techniques, the use of primary laboratory test equipment and methodology plus our acute attention to detail enables us to produce reference materials with some of the lowest levels of uncertainty of measurement available. Our vast knowledge and expertise in the manufacture of reference materials and the robust certification process that we adopt, ensures the highest level of confidence and product integrity.

Paragon's products are used in multiple industries throughout the world, which we serve both directly from our headquarters in the UK and via our appointed global distributor network. Our products and services are suitable for a wide-range of industries across the globe. Here are some of the industries we work in:

- Petroleum & Petrochemical
- Food & Beverage
- Pharmaceutical & Medical
- Paints & Coatings
- Adhesive
- Electronics
- Automobile & Aviation

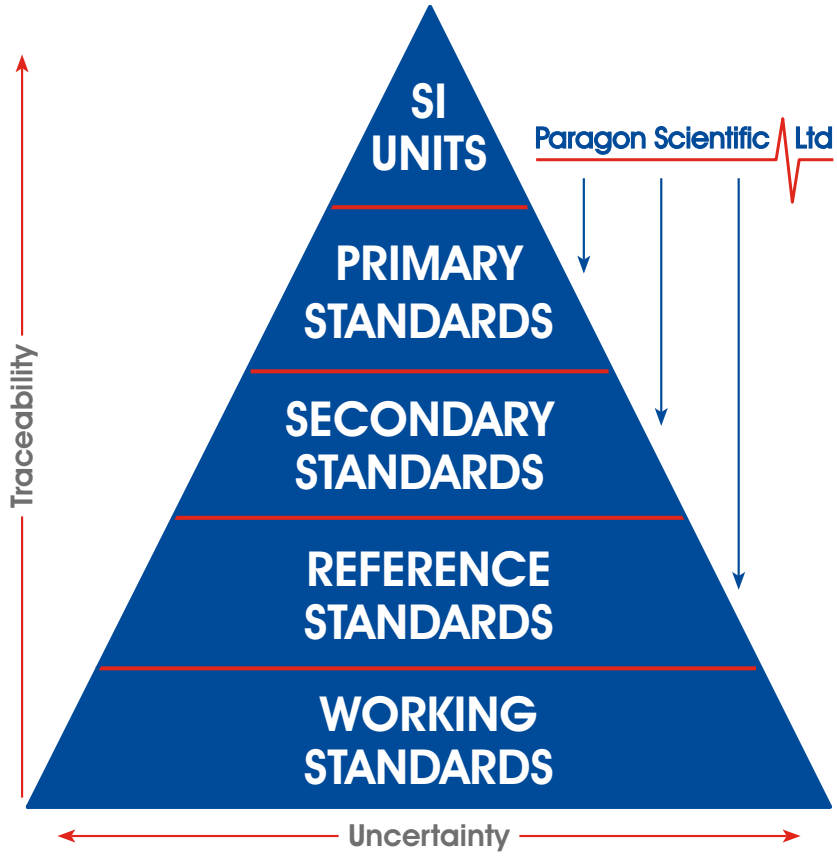
Excellence as Standard

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, which is evidenced by our dual accreditation status under the United Kingdom Accreditation Service (UKAS) to International Standards ISO/IEC 17025 and ISO Guide 34.

Whilst some reference material producers may have only recently made some improvements to the characterisation and certification of their product offering, Paragon has always sought to certify its products to the highest metrological level it can achieve. This has been one of our key objectives since the company was founded.

Integrity and Quality has and always will be at the forefront for Paragon Scientific, which is evidenced by our accreditations under UKAS and long-standing relationships with end-users and the worldwide partners we work with. Paragon has been independently evaluated against its competitors by equipment manufacturers and is the **first choice** partner for equipment manufacturers. Integrity and Quality are embedded across all our business activities and provides the framework in how we approach new ideas and operate.

The Hierarchy of Standards



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Our Accreditations

Paragon Scientific Limited holds dual accreditation status under The United Kingdom Accreditation Service (UKAS) to international standards of ISO 17025 and ISO Guide 34.

Our dual ISO Guide 34 / ISO 17025 accreditations under UKAS provide unprecedented quality assurance on a global scale and allows us to produce what is known as the "Gold Standard" of Certified Reference Materials and Calibration Standards.

UKAS Approved Excellence

The United Kingdom Accreditation Service (UKAS) is the sole national accreditation body recognised by the UK Government for certification and conformity to internationally agreed standards for testing, calibration and inspection.

UKAS is a signatory to International Laboratory Accreditation Cooperation (ILAC) which is the international body for promoting cooperation between the various inspection body accreditation schemes that operate throughout the world. Other signatories include, but are not limited to, A2LA (USA), COFRAC (France), Dakks (Germany) and JAB (Japan).

ISO 17025 / ISO Guide 34 accreditation denotes competence for customers to make an informed and confident choice in the procurement process. The UKAS mark ensures buyers have peace of mind. ILAC also bridges international barriers, making trade easier, especially in new growth markets.

International Recognition

ISO 17025 is a recognised international standard for competence to carry out testing and calibrations to the standard indicated by international test method protocol or calibration procedures. This requires accredited facilities to comply with all the requirements detailed within the varied sections of the standard.

These include: assuring quality of test and calibration results, technical competence of staff employed, environmental conditions and procurement. ISO/IEC 17025 is applicable to laboratories that operate in a multitude of business sectors, including automotive, cosmetics, micro-electronics, petro-chemical, pharmaceutical and power generation.

ISO Guide 34 provides the highest level of Quality Assurance, confirms the expertise of the manufacturer, the integrity of the production systems and the reliability of the Certified Reference Materials that it produces. Combined with our ISO 17025 accreditation, the highest level of quality assurance is achieved through ISO 17025 / ISO Guide 34 accreditations. This is commonly referred to as 'The Gold Standard' in the production of Certified Reference Materials.

How Our Accreditation Benefits Our Customers

Not all Reference Material producers are the same…

Accreditation is a means of rigorous assessment, and does so to fully assess the technical competence and veracity of organisations offering products such as Certified Reference Materials. The need for specified standards is crucial to global trade and growing industries and, naturally, the need for organisations to comply and perform to such standards has increased. International standards are essential to global cooperation across wide-ranging industries, and so, the importance of accuracy and quality needs to translate on an international basis.

More than just following a script for international standards, facilities that have been accredited provide assurance for all involved in demonstrating best practice and quality performance. Our accreditation is proof of technical competence and integrity. Formal recognition of this allows our customers to feel certain in the quality of the products we produce.

Seals of Approval

As an accreditation body, UKAS have signatories International Laboratory Accreditation Mutual Recognition Arrangement (ILAC MRA), which means that they themselves have been assessed against the requirements of ISO 17011 by their peers. In doing so, the subsequent accreditations that they grant to accredited laboratories guarantees standards of equivalent value.

Having gained UKAS's approval for ISO Guide 34 and ISO 17025 Paragon is proud to have UKAS and ILAC MRA signatories on our accredited products and services.

It is important for customers to always examine the credentials of any producer of reference materials. As an accredited laboratory, we can easily verify our technical competence and have full detailed technical analysis and traceable methodology for all of our products and services.

Confidence as Standard

As an accredited laboratory, our products follow in strict accordance with an international test method protocol and, most importantly, have been formally recognised in our competence to do so. Our expertise and confidence in the quality of our products has undergone continual examination ensuring that only the highest level of analytical integrity is achieved.

Since gaining accreditation is not a one-off measure, Paragon is regularly evaluated to ensure we continue to comply with excellent standards. The assessment reaches all aspects of our technical operations, followed by extensive reports from UKAS on continual performance and improvement.

Overall, we are proud of our accreditations because:

- We comply with the best practices
- We only use highest quality raw materials
- We consistently deliver reliability and guaranteed consistency
- We are accurate in our services on an international basis
- We have the right people, technical expertise and excellent track record
- Our certificates have all the signatories required to prove the claims we make
- Our certification is clear and unambiguous

Certified Reference Materials (CRMs)

Paragon Scientific's range of Certified Reference Materials for Cold Filter Plugging Point (CFPP), Cloud Point, Density, Distillation, Element / Chemical, FAME, Flash Point, Freezing Point, Fuels Testing and Pour Point ensures good inter-laboratory correlation, are fully traceable to national standards and certified using independent testing laboratories worldwide.

- Tested in accordance with ASTM / EN or IP test method protocols
- Certified by Round Robin Method using independent test laboratories
- Ensures good inter-laboratory correlation
- Supplied in tamper evident UN compliant security pack
- Supplied in varying pack sizes from 50mL to1000mL
- 12 month shelf life

PART NUMBER	TEST TYPE	TEST METHOD	PRODUCT NATURE	CERTIFIED VALUE	PACK SIZE
CRM-CFGO	Cold Filter Plugging Point	CFPP ASTM D6371; EN 116 / IP 309	Diesel	-16.3 °C	250 mL
CRM-CPGO	Cloud Point	Cloud Point ASTM D2500; NF EN23015	Diesel	-2.4 °C	250 mL
CRM-DEGA	Density	ASTM D4052; ISO 12185	Gasoline (unleaded)	0.7429 g/mL @ 15 °C	250 mL
CRM-DEGO	Density	ASTM D4052; ISO 12185	Diesel	0.8370 g/mL @ 15 °C	250 mL
CRM-DEKR	Density	ASTM D4052; ISO 12185	Jet Aviation Fuel	0.8025 g/mL @ 15 °C	250 mL
CRM-DIGO	Distillation	Distillation ASTM D86; NF EN ISO 3405	Diesel	172.8°C – 364.5 °C	250 mL
CRM-DIGA	Distillation	Distillation ASTM D86; NF EN ISO 3405	Gasoline (unleaded)	37.4°C – 181.3 °C	250 mL
CRM-SUGOLO	Element/Chemical	Sulphur Content ASTM D5433; ISO 20846	Diesel	7.01 mg/kg	50 mL
CRM-SUKR	Element/Chemical	Mercaptan Sulphur Content ASTM D3227; ISO 3012	Jet Aviation Fuel	15.2 mg/kg	250 mL
CRM-FAGO	Fatty Acid Methyl Ester	Infrared Spectrometry Method, EN 14078	Diesel	6.50% (%Volume, Range B)	250 mL
CRM-ABKR	Flash Point	Abel IP 170	Jet Aviation Fuel	40.3 °C	250 mL
CRM-TAKR	Flash Point	TAG ASTM D56	Jet Aviation Fuel	41.4 °C	250 mL
CRM-PMGO	Flash Point	PMCC ASTM D93 Procedure A	Diesel	66.2 °C	250 mL
CRM-FRKR	Freezing Point	ASTM D2386	Jet Aviation Fuel	-53.4 °C	250 mL
CRM-ACGA	Fuels Testing	Aromatics Content ASTM D5580	Gasoline	27.7%	250 mL
CRM-ADKR	Fuels Testing	Acidity ASTM D3242	Jet Aviation Fuel	0.0085 mg KOH/g	250 mL
CRM-APKR	Fuels Testing	Aniline Point ASTM D611	Jet Aviation Fuel	56.60 °C	250 mL
CRM-DEGA	Fuels Testing	Benzene Content ASTM D4053 / D5580	Gasoline	0.62% Vol.	250 mL
CRM-CNGO	Fuels Testing	Cetane Number ASTM D613	Diesel	52.6	1 Litre
CRM-FIKR	Fuels Testing	FIA Aromatics ASTM D1319	Jet Aviation Fuel	20.1% Vol.	250 mL
CRM-OMGA	Fuels Testing	Motor Octane Number ASTM D2700	Gasoline (unleaded)	85.9	1 Litre
CRM-ORGA	Fuels Testing	Res. Octane Number ASTM D2699	Gasoline (unleaded)	97.2	1 Litre
CRM-VPGA	Fuels Testing	Reid Vapour Pres. ASTM D4953A / 323A	Gasoline	58.9kPa	250 mL
CRM-PPGO	Pour Point	ASTM D97	Diesel	-23.8 °C	250 mL

All certified values stated are nominal

ISO Guide 34 Certified Reference Materials (CRMs)

Paragon Scientific's range of Certified Reference Materials has now been extended to include the worlds-first range of ISO Guide 34 Diesel, Jet Aviation Fuel, Gasoline and Lubricant Certified Reference Materials. This range of Certified Reference Materials is premium level, certified and manufactured in strict accordance and compliance with ISO Guide 34:2000 under our UKAS accreditation. They provide high traceability verification options for laboratory instruments, with their values certified to the highest level of accreditation integrity available globally.

Key benefits include:

- Fully certified in accordance with ISO Guide 34 under our accreditation by UKAS
- Highest level of accreditation guarantee, providing the most credible certified data currently available world-wide
- Low levels of uncertainty achieves maximum accuracy of data
- All data generated exclusively by ISO 17025 accredited laboratories
- Fully traceable to international standards
- Supplied in tamper evident UN compliant security pack
- 12 month shelf life
- Available from stock for immediate dispatch
- Manufactured in the United Kingdom
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

PART NUMBER	TEST TYPE	TEST METHOD	PRODUCT NATURE	CERTIFIED VALUE	PACK SIZE
CRMU-CFGO1	Cold Filter Plugging Point	CFPP ASTM D6371; IP 309	Diesel	-10.8 °C	250 mL
CRMU-CFGO	Cold Filter Plugging Point	CFPP ASTM D6371; IP 309	Diesel	-21.7 °C	250 mL
CRMU-CPGO	Cloud Point	Cloud Point ASTM D2500; ISO 3015; IP 219	Diesel	-7.7 °C	250 mL
CRMU-DEGA	Density	ASTM D4052; IP 365 / ISO 12185	Gasoline	0.72587 g/mL @ 15 °C	250 mL
CRMU-DEGO	Density	ASTM D4052; IP 365 / ISO 12185	Diesel	0.83418 g/mL @ 15 °C	250 mL
CRMU-DEKR	Density	ASTM D4052; IP 365 / ISO 12185	Jet Aviation Fuel	0.79684 g/mL @ 15 °C	250 mL
CRMU-DELU	Density	ASTM D4052; ISO 12185	Lubricant	0.86709 g/mL @ 15 °C	250 mL
CRMU-DIGA	Distillation	Distillation ASTM D86; NF EN ISO 3405	Gasoline	32.8°C – 173.3 °C	250 mL
CRMU-DIGO	Distillation	Distillation ASTM D86; NF EN ISO 3405	Diesel	160.8°C - 355 °C	250 mL
CRMU-DIKR	Distillation	ASTM D86 Atmospheric Distillation	Jet Aviation Fuel	158.7°C – 268.2 °C	250 mL
CRMU-SUKR	Element/Chemical	Mercaptan Sulphur Content ASTM D3227; ISO 3012	Jet Aviation Fuel	7.4 mg/kg	250 mL
CRMU-PMLU	Flash Point	PMCC ASTM D93 Procedure B	Lubricant	190.5 °C	250 mL
CRMU-PMLUB	Flash Point	PMCC ASTM D93 Procedure B	Lubricant	100.7 °C	250 mL
CRMU-PMGO	Flash Point	PMCC ASTM D93 Procedure A	Diesel	66.1 °C	250 mL
CRMU-TAKR	Flash Point	ASTM D56, TAG Flash Point	Jet Aviation Fuel	40.4 °C	250 mL
CRMU-FCLU	Flash Point	COC ASTM D92	Lubricant	257.5 °C	250 mL
CRMU-ABKR	Flash Point	IP 170, Abel Flash Point	Jet Aviation Fuel	40.3 °C	250 mL
CRMU-FRKR	Freezing Point	ASTM D2386	Jet Aviation Fuel	-55.5 °C	250 mL
CRMU-ADKR	Fuels Testing	Acidity ASTM D3242	Jet Aviation Fuel	0.0067 mg KOH/g	250 mL
CRMU-FIKR	Fuels Testing	FIA Aromatics ASTM D1319	Jet Aviation Fuel	17.17% Vol.	250 mL
CRMU-APKR	Fuels Testing	Aniline Point, ASTM D611	Jet Aviation	58.48 °C	250 mL
CRMU-SPKR	Fuels Testing	Smoke Point, ASTM D1322	Jet Aviation	23.76 mm	250 mL
CRMU-PPLU	Pour Point	IP 15, ASTM D97, ISO 3016, BS 2000, Pt 15	Lubricant	-11.2 °C	250 mL
CRMU-PPLU1	Pour Point	IP 15, ASTM D97, ISO 3016, BS 2000, Pt 15	Lubricant	-30.4 °C	250 mL
CRMU-PPGO	Pour Point	IP 15, ASTM D97, ISO 3016, BS 2000, Pt 15	Diesel	-29.99 °C	250 mL

All certified values stated are nominal

Multi-Parameter Certified Reference Materials (MPCRMs)

Increase user-efficiency without compromising on quality

The MPCRMs provide both calibration and verification options for laboratory test equipment, all from the same sample, with their values certified to the highest level of accreditation integrity available globally. The multiple test parameters provide a flexible and cost-effective solution for any laboratory.

Paragon Scientific manufacture premium level, dual certified Multi-Parameter Certified Reference Materials (MPCRMs) in accordance with both ISO 17025 and ISO Guide 34 under our UKAS accreditation. Our range includes MPCRMs specific for use with lubricant materials and diesel materials, each according to relevant test methods and protocols.

Diesel Multi-Parameter Certified Reference Material

- Certified for Viscosity, Density, Flash Point, Cloud Point, CFPP & Distillation using ASTM / IP and EN test method protocols
- Certified in strict accordance to ISO 17025 and ISO Guide 34 under our accreditation by UKAS
- Testing in accordance with ASTM/IP and EN test method protocols
- Highest level of accreditation guarantee, providing the most credible certified data currently available world-wide
- Low levels of uncertainty achieves maximum accuracy of data
- Multiple test parameters provide a flexible and cost effective solution
- All data generated exclusively by ISO 17025 accredited laboratories
- Fully traceable to international standards
- Supplied with the latest EU fully compliant SDS which are available in 24 languages
- 500mL inert glass packaging with tamper evident cap provides absolute assurance of sample integrity
- Manufactured in the United Kingdom
- 18 month shelf life

Lubricant Multi-Parameter Certified Reference Material

- Certified for Viscosity, Density, Flash Point & Pour Point using ASTM / IP and EN test method protocols
- Certified in strict accordance to ISO 17025 and ISO Guide 34 under our accreditation by UKAS
- Testing in accordance with ASTM/IP and EN test method protocols
- Highest level of accreditation guarantee, providing the most credible certified data currently available world-wide
- Low levels of uncertainty achieves maximum accuracy of data
- Multiple test parameters provide a flexible and cost effective solution
- All data generated exclusively by ISO 17025 accredited laboratories
- Fully traceable to international standards
- Supplied with the latest EU fully compliant SDS which are available in 24 languages
- 500mL inert glass packaging with tamper evident cap provides absolute assurance of sample integrity
- Manufactured in the United Kingdom
- 18 month shelf life

Colour Standards

These Standards are ideal for the calibration or verification of colour measuring instruments, ensuring good inter-laboratory or inter-instrument correlation.

The range of liquid standards includes AOCS-Tintometer, ASTM, Gardner, Lovibond RYBN, Pt-Co and Saybolt Colour, the key colour scales applied to oils, fuels and chemicals. They are supplied with full traceability to internationally recognised standards, either UKAS to ISO 17025 / ISO Guide 34 (ASTM, Gardner & Saybolt Colour) or the ISO 9001 quality system (AOCS-Tintometer, Lovibond RYBN and Pt-Co Colour).

All standards are manufactured in the United Kingdom.

AOCS-Tintometer Colour Reference Standards

- Certified under ISO 9001 Quality system
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 12 month shelf life

Gardner (ASTM D1544, D6166) Colour Reference Standards

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 18 month shelf life

PT-Co/Hazen/APHA (ASTM D1209) Colour Reference Standards

- Certified under ISO 9001 Quality system
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 12 month shelf life

ASTM (ASTM D6045, D1500) Colour Reference Standards

- Certified according to ISO 17025 / ISO Guide 34 under UKAS
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 18 month shelf life

Lovibond RYBN Colour Reference Standards

- Certified under ISO 9001 Quality system
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 12 month shelf life

Saybolt (ASTM D6045, D156) Colour Reference Standards

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Full traceability to international standards
- 500mL Pack Size supplied with SDS
- 18 month shelf life

Please visit our website for the latest product information: www.paragon-sci.com

Certified pH Buffer Solutions

Paragon Scientific manufacture a range of Certified pH Buffer Solutions, specifically used for verification and calibration of pH meter instruments. Routine maintenance and verification checks help ensure accurate readings of pH measurement instruments.

Our pH buffer range include solutions for pH 4.00, 7.00 and 10.00 certified at either 20 °C or 25 °C, and are accurate within ± 0.01 at 20 °C and within ± 0.01 at 25 °C.

Paragon Scientific's Certified pH Buffer Solutions provide traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory (NPL) or other recognised national standards laboratories. pH values are traceable to National Institute Standards and Technology (NIST).

Each solution is supplied with a unique batch number, expiry date, and a temperature / pH table that provides nominal correlation data between pH values and temperature scale. The shelf life of each solution is 12 months. Full traceability and uncertainties are stated on the certificate with each solution.

Paragon Scientific's Certified pH Buffer Solutions are colour-coded to allow for easy identification of the pH required, and include anti-fungal preservatives / mould inhibitors.

Certified pH Buffer Solutions

- Certified solutions for either 20 °C or 25 °C
- Certified pH Buffer Solutions are fully traceable to NIST and international protocols
- Sold as colour-coded solutions for easy-identification purposes
- Sold with anti-fungal preservatives / mould inhibitors
- Supplied with certificate, Safety Data Sheet (SDS) and correlation table between pH and temperature
- Supplied in 500 mL, tamper-evident containers. For other volumes, please contact us direct.
- 12 month shelf life per solution

Density Standards

Pure Water Density Standards

Paragon ISO 17025 / ISO Guide 34 Pure Water Density Standards are designed for the calibration or verification of instruments used to measure density. Typically used for, but not limited to the calibration or verification of digital density meters.

ISO 17025 / ISO Guide 34 certification under UKAS ensures full traceability to national standards.

- Dual certified to ISO 17025 / ISO Guide 34 under our UKAS accreditation
- Certified in accordance with primary level ASTM D1480 methodology
- The reagent water meets the definition of Type II in the Specification ASTM D1193
- Supplied in tamper evident packaging with a 12 month shelf life
- Available as single bottle packs or triple pack kits
- Manufactured in the United Kingdom
- Available from stock for immediate dispatch

Density Standards

Paragon ISO 17025 / ISO Guide 34 dual certified Density standards are for the verification of instruments used to measure density of materials which are fluid at the desired test temperature within the range of 15°C to 150°C.

- ISO 17025 / ISO Guide 34 certified under our UKAS accreditation between 15°C to 150°C
- Density tested in strict accordance with ASTM D1480, a primary method for density determination
- Density standards range between 0.6500 - 1.6500 g/mL
- Ensures full compliance to ASTM and IP test method protocols
- Available as single bottle packs
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Relative Density Standard

Paragon ISO 17025 / ISO Guide 34 Relative Density standards are designed for the calibration or verification of instruments used to measure density and relative density of materials at the desired test temperature within the range of 15 °C to 25 °C. All density measurements are made in accordance with ASTM D1480, for density and relative density (specific gravity) of viscous materials by Bingham Pycnometer.

ISO 17025 / ISO Guide 34 certification under UKAS ensures full traceability to national standards.

- Dual certified to ISO 17025 / ISO Guide 34 under our UKAS accreditation
- Certified in accordance with primary level ASTM D1480 methodology
- The Relative density was calculated by dividing the density, as obtained from ASTM D1480, by the density of water at the reference temperature.
- The density of water was taken from the table denoted "Density of Water" found in ASTM D1480 and confirms to the International Temperature Scale (ITS 90).
- Supplied in tamper evident packaging with a 24 month shelf life
- Manufactured in the United Kingdom

Please visit our website for the latest product information: www.paragon-sci.com

Flash Point Standards

Paragon Scientific produces both primary Certified Reference Materials (CRMs) and Secondary Working Standards (SWS's) for flash point in strict accordance with the requirements of ASTM D92 (Cleveland Open Cup Flash Point) and ASTM D93, Procedure A (Pensky-Martens Closed Cup Flash Point).

Primary Certified Reference Materials (CRMs)

Certified Reference Materials (CRMs) which are certified primary standards. The data is established by a method specific interlaboratory study in full compliance with ISO Guide 34 in accordance with our accreditation under UKAS. These materials are intended to be used at least once a year for instrument and/or method verification in accordance with ASTM D92 and ASTM D93, Procedure A.

ASTM D92 Cleveland Open Cup Flash Point Certified Reference Material

- Certified Reference Material for annual verification checks in accordance with ASTM D92
- Certified in strict accordance to ISO 17025 / ISO Guide 34 under our UKAS accreditations by a means of a method specific inter-laboratory study
- Packaged in 3 x 80mL bottles - 'One shot', one bottle per test ensures zero contamination/high-end volatile loss
- Fully traceable to international standards
- 12 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

ASTM D93 (Procedure A) Pensky-Martens Closed Cup Flash Point Certified Reference Material

- Certified Reference Material for annual verification checks in accordance with ASTM D93
- Certified in strict accordance to ISO 17025 / ISO Guide 34 under our UKAS accreditations by a means of a method specific inter-laboratory study
- Packaged in 3 x 80mL bottles - 'One shot', one bottle per test ensures zero contamination/high-end volatile loss
- Fully traceable to international standards
- 12 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

For TAG Flash Point (ASTM D56), Abel Flash Point (IP 170) and Pensky-Martens Flash Point Procedure B (ASTM D93, Procedure B), please refer to Certified Reference Materials on Pages 8 and 9.

Secondary Working Standards (SWS)

Secondary Working Standards (SWS's) are standards that have been manufactured and certified by Paragon according to ISO 17025 and ISO Guide 34. These standards have been characterised in accordance with ASTM D92 or ASTM D93 and are designed to be used on a frequent basis in order to verify test equipment functionality as specified in ASTM D92 or ASTM D93, Procedure A. This is in addition to the use of primary CRM for the annual verification of an instrument.

ASTM D92 Cleveland Open Cup Flash Point Secondary Working Standard (SWS)

- Certified in strict accordance to ISO 17025 / ISO Guide 34 under our UKAS accreditations
- Secondary working standard characterised in accordance with ASTM D92 for equipment performance checks
- Packaged in 3 x 80mL bottles - 'One shot', one bottle per test ensures zero contamination/high-end volatile loss
- Fully traceable to international standards
- 1 year shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

ASTM D93 (Procedure A) Pensky-Martens Closed Cup Flash Point Secondary Working Standard

- Certified in strict accordance to ISO 17025 / ISO Guide 34 under our UKAS accreditations
- Secondary working standard characterised in accordance with ASTM D93, Procedure A, for equipment performance checks
- Packaged in 3 x 80mL bottles - 'One shot' one bottle per test ensures zero contamination/high-end volatile loss
- Fully traceable to international standards
- 1 year shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Refractive Index Standards

Refractive Index Certified Reference Materials

Paragon Scientific produce a 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.

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.

- 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

Sucrose Brix Standards

Paragon Scientific produces a range of Sucrose Standards for use in the calibration and verification of all types of refractometer e.g. handheld, Abbe and high accuracy digital instruments. Sucrose Standards are manufactured using traceable high purity materials following ICUMSA methods. These are the first standards available worldwide which carry a full certification according to ISO 17025 and ISO Guide 34 under UKAS accreditation.

Typically used within the food, beverage and pharmaceutical industries.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Primary refractive index standards traceable to national standards
- Manufactured in accordance with ICUMSA Methods
- Supplied in tamper evident packs with 6 weeks shelf life
- Manufactured in the United Kingdom
- Monthly delivery contracts available for economy, convenience and reliability

Refractive Index and Density Multi-Parameter Certified Reference Materials

Increase Laboratory Efficiency

Our Refractive Index and Density Certified Reference Materials provide a flexible, cost-effective and efficient solution to any laboratory calibrating and / or verifying refractive index and density measurements – all from a single material.

Regular calibration and / or verification of the performance of density and refractive index instruments using certified reference materials helps ensure that laboratories comply with quality control standards and produce reliable results with maximum accuracy.

Paragon Scientific manufacture a range of Multi-Parameter Certified Reference Materials (CRMs) for refractive index and density measurements. The combined Refractive Index and Density CRM is available in four different materials, with each material including certified data for both refractive index and density at 15 °C, 20 °C and 25 °C.

Paragon Scientific's Refractive Index and Density Certified Reference Materials provide traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory (NPL) or other recognised national standards laboratories. Both density values and refractive index values are traceable to National Institute Standards and Technology (NIST). 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 both parameters at 15 °C, 20 °C and 25 °C. The shelf life of each solution is 12 months. Full traceability and uncertainties are stated on the certificate with each material.

- Multi-Parameter Certified Reference Materials for Refractive Index and Density at 15 °C, 20 °C and 25 °C
- Density certified in accordance with primary level ASTM D1480 methodology
- Ensures full compliance to ASTM and IP test method protocols
- All measurements are fully traceable to NIST and international protocols
- Low levels of uncertainty, ensuring maximum accuracy of data and dependable results
- Supplied in 30 mL volume sealed glass vials for ample measurement readings
- 12 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch

Please visit our website for the latest product information: www.paragon-sci.com

Laboratory Reagents

Lithium Chloride Electrolyte

A high quality analytical reagent manufactured and certified compliant for use in ASTM D664 / IP 177, the "Standard Test Method for Acid Number of Petroleum products by Potentiometric Titration". Also applicable to international methodologies that are equivalent to ASTM D664 / IP 177.

- A Lithium Chloride Electrolyte Analytical Reagent manufactured in accordance with ASTM D664 / IP 177 and equivalent methodologies
- Provided with a certificate which includes an estimation of uncertainty of manufacture
- Ensures full compliance with ASTM and IP test method requirements for reagent preparation
- Convenient 30mL bottle size for direct filling into the electrode
- Multi pack option available
- Cost effective and time saving
- SDS included
- 6 month shelf life

Synthetic Sea Water

A high quality analytical reagent manufactured and certified compliant for use in ASTM D665 / IP 135, the "Standard Test Method for Rust-Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water". Also applicable to international methodologies that are equivalent to ASTM D665 / IP 135.

- A Synthetic Sea Water Analytical Reagent manufactured in accordance with ASTM D665 / IP 135 and equivalent methodologies
- Provided with a certificate which includes an estimation of uncertainty of manufacture
- Ensures full compliance with ASTM and IP test method requirements for reagent preparation
- Conveniently packaged in single dose or multi dose packs
- Cost effective and time saving
- SDS included
- 12 month shelf life

Total Acid Number (TAN) Standards

Paragon Scientific's Total Acid Number Standards are specifically manufactured for the verification of analytical instruments used to determine acid number by potentiometric titration.

- Typically used in, but not limited to, the analysis of used oils and lubricants
- Tested and certified in strict accordance with ASTM D664 / IP 177
- Fully traceable to international standards
- 24 month shelf life
- Available as a single or triple pack
- Supplied in tamper evident packaging
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully complaint SDS which are available in 24 languages

Total Base Number (TBN) Standards

Paragon Scientific's Total Base Number Standards are specifically manufactured for the verification of analytical instruments used to determine base number by potentiometric titration.

- Typically used in, but not limited to, the analysis of new oils, used oils and lubricants
- Tested and certified in strict accordance with ASTM D2896 / IP 276
- Fully traceable to international standards
- 24 month shelf life
- Available as a single or triple pack
- Supplied in tamper evident packaging
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully complaint SDS which are available in 24 languages

Please visit our website for the latest product information: www.paragon-sci.com

Viscosity Standards

Paragon Scientific's ISO 17025 / ISO Guide 34 dual certified Viscosity Standards are for the calibration and verification of glass capillary viscometers and other viscosity measuring equipment where operating temperature is controlled precisely.

We understand the importance of accurate calibration in your laboratory so we only source the highest quality raw materials for use in the manufacture of all our Viscosity Standards. Using only the best quality materials means that our standards are highly stable in all environments, you will not experience 'flocking' (associated with cool environments), discolouration or sedimentation.

We fully test our products at every given data point, so you can be assured that the certified value given is the most accurate available.

Our Viscosity Standards are certified in strict accordance with the associated methodology under our dual UKAS accreditations for ISO 17025 and ISO Guide 34.

CCS Viscosity Standards (Cold Cranking Simulator)

Paragon ISO 17025 / ISO Guide 34 dual certified CCS Viscosity Standards are for the calibration and verification of analytical equipment used in Cold Cranking Simulator (CCS) oil testing to ASTM D5293 and SAE Specification J300.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Full traceability to national standards
- Ensures full compliance to ASTM & IP test method protocol
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Paragon Scientific can offer CCS Viscosity Standards individually in 500 mL volume or as set CCS Viscosity kits. These are set kit sizes of 8, 14 or 18 x 500 mL volume standards. Please see our full listing on our website.

Cone & Plate Viscosity Standards (CAP)

Paragon ISO 17025 / ISO Guide 34 dual certified Cone and Plate Viscosity Standards are specifically formulated for the paint and coatings industry and represent the most comprehensive range of standards available for this application.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Density g/mL in strict accordance with ASTM D1480
- Kinematic, mm^2/s (cSt), Dynamic Viscosity mPa·s (cP) & Density, g/mL, given at all temperatures
- Ensures full compliance to ASTM & IP test method protocol
- Full traceability to national standards
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

General Purpose Viscosity Standards

Paragon ISO 17025 / ISO Guide 34 dual certified General Purpose Viscosity Standards are tested in strict accordance with ASTM D2162, ("Standard Practice for basic calibration of master viscometers and viscosity standard oils").

They are fully traceable to national standards and are test equipment compatible.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Tested in accordance with ASTM D2162 ("Standard Practice for basic calibration of master viscometers and viscosity standard oils")
- Density g/mL in strict accordance with ASTM D1480
- Kinematic, mm^2/s (cSt), Dynamic Viscosity mPa·s (cP) & Density, g/mL, given at all temperatures
- Standard Pack Size 500mL, available also in 5L, 10L and 20L
- Fully traceable to national standards
- Ensures full compliance to ASTM & IP test method protocol
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Flow Cup Viscosity Standards

Paragon ISO 17025 / ISO Guide 34 dual certified flow cup standards are especially designed for use in DIN, Ford, ISO, Shell and Zahn flow cups. Certified at 20°C and 25°C, each value is tested to ASTM D2162 for viscosity measurement and ASTM D1480 for density measurement.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Tested in strict accordance with ASTM D2162 ("Standard Practice for basic calibration of master viscometers and viscosity standard oils")
- Density g/mL in strict accordance with ASTM D1480
- Kinematic, mm^2/s (cSt), Dynamic Viscosity mPa·s (cP) & Density, g/mL, given at all temperatures
- Ensures full compliance to ASTM & IP test method protocol
- Full traceability to national standards
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Please visit our website for the latest product information: www.paragon-sci.com

High Temperature Viscosity Standards

Paragon ISO 17025 / ISO Guide 34 dual certified High Temperature Viscosity Standards are manufactured for temperatures between 20 °C and 150 °C and provide data for kinematic viscosity, dynamic viscosity and density.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Standards Pack Size 500 mL, available also in 5 L, 10 L and 20 L
- Kinematic, mm^2/s (cSt), Dynamic Viscosity mPa·s (cP) and density (g/mL) given at temperatures between 20 °C and 150 °C
- Fully traceable to National Standards
- Ensures full compliance to ASTM & IP test method protocol
- Tamper evident security packaging
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate despatch
- Supplied with the latest EU fully complaint SDS which are available in 24 languages

High Temperature Viscosity Standards, 100 to 150 °C

We also manufacture a range of High Temperature Viscosity Standards specifically for temperatures between 100 and 150 °C. These are dual certified to ISO Guide 34 and ISO 17025 and are specially formulated to provide values for kinematic viscosity, dynamic viscosity and density.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Kinematic, mm^2/s (cSt), Dynamic Viscosity mPa·s (cP) and density (g/mL) between 100 °C and 150 °C
- 500 mL Standard Pack Size
- Fully traceable to National Standards
- Ensures full compliance to ASTM & IP test method protocol
- Tamper evident security packaging
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate despatch
- Supplied with the latest EU fully complaint SDS which are available in 24 languages

Low Temperature Viscosity Standards

These standards are widely used for the verification of viscometers at sub-zero temperatures on a routine basis. The use of Paragon ISO 17025 / ISO Guide 34 dual certified, low temperature standards can help provide confidence in overall system functionality including bath uniformity, bath stability, temperature measurement, timer accuracy and viscometer calibration.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- Standard Pack Size 500mL, available also in 5L, 10L and 20L
- Fully traceable to national standards
- Ensures full compliance to ASTM & IP test method protocol
- 24 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Medical Viscosity Standards

Tested in strict accordance with ASTM D2162, the primary method for viscosity standards calibration. These medical grade viscosity standards are fully traceable to national standards and are also test equipment compatible.

Typically used, but not limited to, the calibration and verification of viscosity measuring equipment.

- Certified according to ISO 17025 under our UKAS accreditation
- Pack size available in 100mL and 500mL
- Full traceability to national standards
- 12 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Mineral Oil Rotational Viscosity Standards

Paragon Scientific's Mineral Oil Rotational Viscosity Standards are the first choice option where end users are unable to have silicone in their process. Dual certified to both ISO 17025 and ISO Guide 34 under our UKAS accreditation, they provide both calibration and verification options for rotational viscometer test equipment. The dynamic viscosity at 20 & 25 °C is derived from the kinematic viscosity measured in strict accordance with ASTM D2162 and the density measured in strict accordance with ASTM D1480. Dynamic viscosity at intermediate temperatures is derived from the kinematic viscosity calculated in strict accordance with ASTM D341 and interpolated density measurements by calculation.

Key benefits include:

- Certified according to ISO 17025 under our UKAS accreditation
- Pack size available in 100mL and 500mL
- Full traceability to national standards
- 12 month shelf life
- Manufactured in the United Kingdom
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Pure Water Viscosity Standards

Paragon ISO 17025 / ISO Guide 34 dual certified Pure Water Viscosity Standards are certified in strict accordance with ASTM D445 for 5 °C, as well as ASTM D2162, the primary method for viscosity standards manufacture, for temperatures at 20 °C, 25 °C and 37 °C. Dual certified to the International Standards BS EN ISO / IEC 17025 and ISO Guide 34 under our UKAS accrediatation. We test at Primary level using master viscometers in accordance with ASTM D2162 to ensure the lowest uncertainty of measurement thus providing standards that are certified with primary level accuracy.

Key benefits include:

- Certified according to ISO 17025 / ISO Guide 34 under our UKAS accreditation
- Certified in strict accordance with ASTM D445 for 5 °C
- Certified in strict accordance with ASTM D2162 for 20 °C, 25 °C and 37 °C.
- Density g/mL in accordance with ASTM D1480 for all temperatures
- Standard Pack Size 100 mL
- Fully traceable to National Standards
- Ensures full compliance to ASTM & IP test method protocol
- 6 month shelf life
- Manufactured in the United Kingdom

Small Sample Viscosity Standards - ASTM D7279

These standards are certified in strict accordance with ASTM D2162 at 40 °C and 100 °C under our ISO 17025 and ISO Guide 34 accreditation and have been manufactured specifically for the users of ASTM D7279, Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids by Automated Houillon Viscometer and other similar type test equipment.

- Fully traceable to international standards
- Ensures full compliance to ASTM & IP test method protocol
- Certified in strict accordance with ASTM D2162
- 60mL lower volume cost effective solution
- 24 month shelf life
- Available from stock for immediate despatch
- Manufactured in the United Kingdom

Please visit our website for the latest product information: www.paragon-sci.com

Silicone Rotational Viscosity Standards

Paragon ISO 17025 / ISO Guide 34 dual certified Silicone Rotational Viscosity Standards are specifically formulated for use with rotational viscometers. Supplied in 600mL 'ready to use' packs specially designed to eliminate the requirement to transfer the sample to a test beaker.

Safer working, less mess, less waste, higher throughput.

- Certified according to ISO 17025 / ISO Guide 34 under UKAS accreditation
- 600mL of product supplied in a ready to use 'test in pack' container
- Tested and certified at 20 °C and 25 °C
- 12 month shelf life
- Ensures full compliance to international test method protocol
- Full traceability to national standards
- Custom blending available
- In stock and available for immediate dispatch
- Supplied with the latest EU fully compliant SDS which are available in 24 languages

Special Blend Viscosity Standards

If you have a requirement for different temperatures or viscosity values we may be able to offer you a solution.

We also offer highly competitive rates for viscosity standard bulk blending where customers wish to have a supply of carefully prepared and guaranteed homogeneous Newtonian materials for use on a daily or high frequency basis.

There are many packaging options available, so please contact us with your requirements.

Certified Viscosity Check Oils

Paragon Scientific's range of Certified Viscosity Check Oils are manufactured and certified in accordance with the requirements of ISO 17025 and ISO Guide 34. Kinematic viscosity measurements have been made in accordance with ASTM D445, using Reference Viscometers certified in accordance with ASTM D446 and ASTM D2162. Density, Cold-Crank Simulator (CCS) and Viscosity Index measurements have been made in accordance with ASTM D4052, ASTM D5293 and ASTM D2270 respectively.

The viscosity values for the certified viscosity check oils have been tested and certified at typical blend targets. These check oils are for the validating the performance of Cold-Cranking Simulator and Kinematic Viscometers by measuring commercially available formulated engine oils.

- Certified in strict accordance with ISO 17025 / ISO Guide 34
- Kinematic Viscosity mm^2/s (cSt) in accordance with ASTM D445
- Density g/mL in strict accordance with ASTM D4052
- CCS Dynamic Viscosity mPa·s (cP) in accordance with ASTM D5293
- Viscosity Index in accordance with ASTM D2270
- Standard Pack Size 500mL and 5L available
- Fully traceable to National Standards
- Tamper evident security packaging
- 24 month shelf life
- Manufactured in the United Kingdom

Bath Media

Paragon bath fluids are formulated using high quality raw materials which facilitate optimum visibility, maximum heat stability and efficiency of thermostatic baths. The low viscosity aids dissipation of air bubbles which can lead to detection problems in automatic systems and ensures bath stability and uniformity are optimised.

White Oil Bath Media

- White Oil Bath Media available for use at 40 to 80 °C or 80 to 120 °C
- Available in 5L or 20L volume sizes
- Manufactured in the United Kingdom

Silicone Fluid Bath Media

- Silicone Fluid Bath Media available for use at range of temperatures: 20 to 60 °C, 50 to 100 °C, 90 to 135 °C, and 120 to 150 °C
- Kinematic viscosity (cSt) values at 25 °C
- Available in 5L or 20L volume sizes
- Manufactured in the United Kingdom

Please visit our website for the latest product information: www.paragon-sci.com

Glass Capillary Viscometers

Paragon Scientific is able to offer a full range of high quality glass capillary viscometers, as described in "ASTM D446 Standard Specifications and Operating Instructions for Glass Capillary Kinematic Viscometers". All are manufactured in accordance with ASTM D446, ISO 3105 and IP 71 Section 2. These can be supplied with a UKAS ISO 17025 calibration or un-calibrated.

We are also able to offer viscometer modifications to the upper tubes of the viscometers to allow usage in some constant temperature baths where meeting the minimum depth is an issue, as permitted by ASTM D446. In addition Paragon Scientific can offer viscometers with a custom constant where it is a requirement by the customer. For further information or help in selecting a suitable viscometer please do not hesitate to get in touch with Paragon Scientific or your local representative.

BS/IP/RF U-Tube Reverse Flow Viscometer for Opaque Liquids

For the determination of kinematic viscosity of transparent and opaque Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

BS/IP/SL Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

BS/IP/SL(S) Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

BS/IP/MSL Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

BS/U-Tube Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

BS/U/M Miniature Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

Cannon-Fenske Routine Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

Cannon-Fenske Opaque Viscometer for Transparent & Opaque Liquids

For the determination of kinematic viscosity of transparent and opaque Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

Ubbelohde Viscometer for Transparent Liquids

For the determination of kinematic viscosity of transparent Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

Zeitfuchs Cross-Arm Viscometer for Transparent & Opaque Viscometer

For the determination of kinematic viscosity of transparent and opaque Newtonian liquids according to ASTM D445, ISO 3104 and IP 71 Section 1

ISO 17025 Viscometer Calibration Available

We can supply any of the above glass capillary viscometers with a full UKAS ISO 17025 calibration. ISO 17025 calibration ensures low level of uncertainty of measurement and provides users confidence and accuracy in their results. Please see page 29 for Testing and Calibration Services that we can provide.

Please visit our website for the latest product information: www.paragon-sci.com

ASTM Glassware

Paragon Scientific can offer a large range of ASTM Glassware for the petroleum and lubricants industry. This includes, but is not restricted to, the following list below:

- D86 Distillation Flasks and Receivers
- D1160 Distillation Flasks and Receivers
- D1319 Hydrocarbon FIA Analyser Tubes
- D1401 Water Seperability Cylinders
- D2500 Cloud Point Jars
- D3242 Acidity In Aviation Turbine Fuel Titration Flasks
- D524 Ramsbottom Coking Bulbs
- D525 Oxidation Stability Jars
- D611 Aniline Point Jars
- D6371 Cold Filter Plugging Point Jar and Pipettes
- D892 Foaming of Lubricant Oil Cylinders
- D943 Oxidation Condenser and Test Tubes
- D97 Pour Point Jars

Paragon Scientific are able to supply ASTM Glassware to fit different manufacturers equipment. Please refer to our website for further information and availability.

Alongside this, Paragon Scientific can also offer both FIA Silica Gels and FIA Dyed Gels. For use in accordance with ASTM D1319 Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption.

Hydrometers

Paragon Scientific can offer a range of Hydrometers which are manufactured to exacting specifications and are available as either non-certified or with a UKAS certificate of calibration to ISO 17025.

- L20 at 15 °C Relative Density (SG) Hydrometers
- L20 at 20 °C Relative Density (SG) Hydrometers
- L50 at 15 °C Relative Density (SG) Hydrometers
- L50 at 20 °C Relative Density (SG) Hydrometers
- M50 at 15 °C Relative Density (SG) Hydrometers
- M50 at 20 °C Relative Density (SG) Hydrometers

If you have a requirement for different hydrometers or a particular range specification, we may be able to offer a solution. Please contact us with your requirements.

Thermometers

Digital Platinum Resistance Thermometers

Paragon Scientific has available, high accuracy Hand Held and Bench Top thermometers, together with a range of highly stable reference probes, available for a wide range of temperatures.

These thermometers are manufactured using the latest technology. Please refer to our website for further information and availability.

Testing & Calibration Services

Flow Cup Calibration

We are able to offer a calibration service for flow cups. Our service has been designed specifically to keep your calibration costs to a minimum. Send your flow cup to us for cleaning and full recalibration.

We can offer this service for the following:

- Flow Cup to ASTM D1200
- Flow Cup to ISO 2431
- Flow Cup to BS 3900
- Zahn Flow Cup
- DIN 53211 (No. 4 Cup only)

Capillary Viscometer Recalibration

Paragon Scientific can complete a full ISO 17025 recalibration service on customer's glass capillary viscometers, as part of our scope of accreditation under UKAS. Designed specifically to keep your costs to a minimum. Send your viscometers to us for cleaning and full UKAS recalibration.

- Cleaning and full recalibration in accordance with ASTM D445 / D446
- Each viscometer is supplied with a UKAS ISO 17025 certificate of calibration
- Repacking into a viscometer box
- Damaged viscometers can be assessed and quoted prior to repair and calibration

Hydrometer Calibration

Hydrometer Calibration Service, UKAS ISO 17025 Certified. We are able to offer a calibration service for hydrometers within a range of 0.6000 g/mL to 2.000 g/mL with best measurement capability from 0.00005 g/mL.

This service is available in conjunction with products from our hydrometer range and is also offered as a recalibration service.

Thermometer Calibration

Paragon Scientific can offer full ISO 17025 calibration on all thermometers. This service is available in conjunction with products from our thermometer range and is also offered as a recalibration service.

Your Calibration Requirements

Calibration of your measuring instruments has two important objectives: It checks the accuracy of your instrument and it determines the traceability of the measurement. A routine calibration service ensures low level of uncertainty of measurement and provides you with confidence in the accuracy of your results.

Have a specific calibration requirement? Please contact us with details of your requirements and we will see if we can offer a suitable calibration service that meets your verification needs.

Contact Information

Paragon Scientific Ltd

Paragon Scientific's products and services are used in multiple industries throughout the world, which we serve both directly from our headquarters in the UK and via our appointed global distributor network.

Contact us directly to find your local representative of Paragon Scientific's products and services.

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*For further information about Paragon Scientific's products and services, please feel free to contact our team at **sales@paragon-sci.com** or contact your local representative. Details can be provided upon request.*

Quality. Integrity. Confidence

Certified Reference Materials

Viscometers

Integrity

Laboratory Quality

Reagents Confidence

Calibration Services

Calibration Standards

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