ARO SCIENTIFIC

FLASH POINT CERTIFIED REFERENCE MATERIALS

AND SECONDARY WORKING STANDARDS

Precision. Accuracy. Measurement Certainty

ARO Scientific Ltd

ARO Scientific Ltd is an independent ISO 17034 accredited reference material producer with ISO/IEC 17025 accredited testing laboratories, providing high quality certified reference materials, reference materials, standards, and consumables for calibration of measuring equipment, verification of measuring equipment, method validation, method verification, or other quality control processes applicable for international test methods such as ASTM, IP, ISO, etc. Our management team has more than 35 years' experience in the manufacturing, characterisation and certification of certified reference materials, reference materials, standards, and consumables.

Accreditation

ARO Scientific Ltd holds dual accreditation status under The United Kingdom Accreditation Service (UKAS) to international standards ISO/IEC 17025 and ISO 17034, CAB No. 27393. 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 17034 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. Our Combined UKAS and ILAC-MRA Mark demonstrates that the accreditation we hold is recognised under the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement, our certificates are accepted around the world.

Quality Commitment

ARO Scientific Ltd recognises that our customers should be always provided with products and services they can reply upon, trust and have confidence to use on a daily basis. Our commitment to quality and our accreditations demonstrates that we have rigorous quality systems in place that allow us to provide customers with the highest quality products possible, which are accepted globally.

UKAS REFERENCE MATERIALS 27393

UKAS TESTING 27393

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FLASH POINT
CERTIFIED REFERENCE MATERIALS

The flash point of a liquid is defined as the lowest temperature, corrected to a barometric pressure of 101.3 kPa, at which a substance generates enough vapor to form a vapor/air mixture that can be ignited with an ignition source. Flash point data is used for assessing the safety of liquid fuels, liquid lubricants, and their mixtures, for example, shipping and safety regulations to define "flammable" materials. Flash point data can also indicate the possible presence of highly volatile and flammable material in a relatively non-volatile or non-flammable material.

There are different international methods such as ASTM, IP, ISO, etc. for determining flash point. Test methods recommend flash point testing equipment is verified using Certified Reference Materials (CRM) and on-going performance monitoring is performed using Secondary Working Standards (SWS). We offer a range of certified reference materials and secondary working standards for use with flash point testing equipment.

Abel Closed-Cup Flash Point

ISO 17034 Abel Closed-Cup Flash Point Certified Reference Materials intended to be used for verification of measuring equipment, method validation, method verification, or other quality control processes used to determine flash point, applicable for the test method IP 170, or test methods ISO 13736, and BS 2000 : Part 170, where applicable.

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ARO's Abel Closed-Cup Flash Point Certified Reference Materials have been characterised in accordance with IP 170 or equivalent test method. Manufacturing, testing and certification of Abel flash point has been performed in accordance with ARO's accreditation to ISO 17034, UKAS CAB No. 27393.

Part No.	Certification	Matrix	Nominal Value	Pack Size
CRM-ABKR01	ISO 17034	Jet Aviation Fuel	40 °C	250 mL

Cleveland Open Cup (COC) Flash Point

ISO/IEC 17025 and ISO 17034 Cleveland Open Cup (COC) Flash Point Certified Reference Materials intended to be used for verification of measuring equipment, method validation, method verification, or other quality control processes used to determine flash point, applicable for the test method ASTM D92, or test methods IP 36, ISO 2592, or other applicable test methods.

UKAS REFERENCE MATERIALS 27393 UKAS TESTING 27393

Our Cleveland Open Cup (COC) Flash Point Certified Reference Materials have been characterised in accordance with ASTM D92 or equivalent test method. Manufacturing, testing and certification for Cleveland Open Cup (COC) Flash Point has been performed in accordance with ARO's accreditation to ISO/IEC 17025 and ISO 17034, UKAS CAB No. 27393.

Part No.	Certification	Matrix	Nominal Value	Pack Size
CRM-COC10	ISO 17025 / ISO 17034	Mineral Oil	85 °C	3 x 80 mL
CRM-COC20	ISO 17025 / ISO 17034	Mineral Oil	125 °C	3 x 80 mL
CRM-COC30	ISO 17025 / ISO 17034	Mineral Oil	160 °C	3 x 80 mL
CRM-COC40	ISO 17025 / ISO 17034	Mineral Oil	250 °C	3 x 80 mL
CRM-FCLU01	ISO 17025 / ISO 17034	Lubricant	260 °C	250 mL

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PENSKY-MARTENS CLOSED CUP (PMCC) FLASH POINT

ISO/IEC 17025 and ISO 17034 Pensky-Martens Closed Cup (PMCC) Flash Point Certified Reference Materials intended to be used for verification of measuring equipment, method validation, method verification, or other quality control processes used to determine flash point, applicable for the test method ASTM D93, or test methods IP 34, ISO 2719, or other applicable test methods.

UKAS REFERENCE MATERIALS 27393 UKAS TESTING 27393

Our Pensky-Martens Closed Cup (PMCC) Flash Point Certified Reference Materials have been characterised in accordance with ASTM D93 Standard Test Method for Flash Point by Pensky Martens Closed Cup Tester, Procedure A, or equivalent test method. Manufacturing, testing and certification for Pensky-Martens Closed Cup (PMCC) Flash Point has been performed in accordance with ARO's accreditation to ISO/IEC 17025 and ISO 17034, UKAS CAB No. 27393

Part No.	Certification	Matrix	Nominal Value	Pack Size
CRM-PMGO01	ISO 17025 / ISO 17034	Diesel	60 °C	250 mL
CRM-PMCC10	ISO 17025 / ISO 17034	Mineral Oil	80 °C	3 x 80 mL
CRM-PMCC20	ISO 17025 / ISO 17034	Mineral Oil	105 °C	3 x 80 mL
CRM-PMCC30	ISO 17025 / ISO 17034	Mineral Oil	140 °C	3 x 80 mL
CRM-PMCC40	ISO 17025 / ISO 17034	Mineral Oil	230 °C	3 x 80 mL

We can also supply Pensky-Martens Closed Cup (PMCC) Flash Point Certified Reference Material that have been characterised in accordance with ASTM D93 Standard Test Method for Flash Point by Pensky Martens Closed Cup Tester, Procedure B.

Part No.	Certification	Matrix	Nominal Value	Pack Size
CRM-PMLU01	ISO 17025 / ISO 17034	Lubricant	100 °C	250 mL

Tag Closed Cup Flash Point

Tag Closed Cup Flash Point Certified Reference Materials (CRM) intended to be used for verification of measuring equipment, method validation, method verification, or other quality control processes used to determine flash point, applicable for the test method ASTM D56

Part No.	Certification	Matrix	Nominal Value	Pack Size
CRM-TAKR01	Round Robin	Jet Aviation Fuel	40 °C	250 mL

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FLASH POINT
SECONDARY WORKING STANDARDS

Secondary Working Standards (SWS) are flash point standards manufactured and certified by ARO Scientific according to ISO/IEC 17025 and ISO 17034. These standards are designed to be used on a frequent basis in order to verify test equipment functionality on an on-going basis. These are secondary working standards, which have been characterised in accordance with ASTM D92 or ASTM D93 (Procedure A). They are suitable for monitoring the equipment between annual verification checks as specified in ASTM D92 or ASTM D93.

UKAS REFERENCE MATERIALS 27393 UKAS TESTING 27393

Cleveland Open Cup (COC) Flash Point

ISO/IEC 17025 / ISO 17034 certified Cleveland Open Cup (COC) Flash Point Standards are tested and certified in accordance with ASTM D92 'Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester.'

ARO's Secondary Working Cleveland Open Cup (COC) Flash Point Standards have been characterised in accordance with ASTM D92. Manufacturing, testing and certification has been performed in accordance with ARO's accreditation to ISO/IEC 17025 and ISO 17034, UKAS CAB No. 27393.

Part No.	Certification	Matrix	Nominal Value	Pack Size
SWS-COC10	ISO 17025 / ISO 17034	Mineral Oil	85 °C	3 x 80 mL
SWS-COC20	ISO 17025 / ISO 17034	Mineral Oil	125 °C	3 x 80 mL
SWS-COC30	ISO 17025 / ISO 17034	Mineral Oil	160 °C	3 x 80 mL
SWS-COC40	ISO 17025 / ISO 17034	Mineral Oil	200 °C	3 x 80 mL
SWS-COC50	ISO 17025 / ISO 17034	Mineral Oil	280 °C	3 x 80 mL

Pensky-Martens Closed Cup (PMCC) Flash Point

ISO/IEC 17025 / ISO 17034 certified Pensky-Martens Closed Cup (PMCC) Flash Point Standards are tested and certified in accordance with ASTM D93 'Standard Test Method for Flash Point by Pensky Martens Closed Cup Tester - Procedure A'.

UKAS REFERENCE MATERIALS 27393 UKAS TESTING 27393

ARO's Secondary Working Pensky-Martens Closed Cup (PMCC) Flash Point Standards have been characterised in accordance with ASTM D93, Procedure A. Manufacturing, testing and certification has been performed in accordance with ARO's accreditation to ISO/IEC 17025 and ISO 17034, UKAS CAB No. 27393.

Part No.	Certification	Matrix	Nominal Value	Pack Size
SWS-PMCC10	ISO 17025 / ISO 17034	Diesel	60 °C	3 x 80 mL
SWS-PMCC20	ISO 17025 / ISO 17034	Mineral Oil	80 °C	3 x 80 mL
SWS-PMCC30	ISO 17025 / ISO 17034	Mineral Oil	105 °C	3 x 80 mL
SWS-PMCC40	ISO 17025 / ISO 17034	Mineral Oil	140 °C	3 x 80 mL
SWS-PMCC50	ISO 17025 / ISO 17034	Mineral Oil	190 °C	3 x 80 mL
SWS-PMCC60	ISO 17025 / ISO 17034	Mineral Oil	230 °C	3 x 80 mL

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