

SCOPE OF ACCREDITATION TO ISO 17034:2016

CANNON INSTRUMENT COMPANY 2139 High Tech Road State College, PA 16803-1733 Tom Zubler Phone: 814 353 8000

REFERENCE MATERIALS PRODUCER

Valid To: May 31, 2025 Certificate Number: 1262.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this Reference Material Producer for the production of certified reference materials and reference materials of the following categories:

Certified Reference Material/ Matrix or Artifact	Property Value(s)/ Concentration Ranges	Associated Uncertainty ¹	Test, Analysis, Measurement, Methods	Approach Used to Assign Property Values
Kinematic and Dynamic Viscosity Oil Standards –				
< 15 °C	< 10 mm ² /s (10 to 100) mm ² /s (100 to 1000) mm ² /s (1000 to 10 000) mm ² /s (10 000 to 150 000) mm ² /s	0.21 % 0.26 % 0.32 % 0.47 % 0.53 %	ASTM D445, D446, D2162; ISO 3104, 3105	Glass capillary viscometry
(15 to 45) °C	< 10 mm ² /s (10 to 100) mm ² /s (100 to 1000) mm ² /s (1000 to 10 000) mm ² /s (10 000 to 150 000) mm ² /s	0.16 % 0.22 % 0.29 % 0.38 % 0.44 %		
> 45 °C	< 10 mm ² /s (10 to 100) mm ² /s (100 to 1000) mm ² /s (1000 to 10 000) mm ² /s (10 000 to 150 000) mm ² /s	0.21 % 0.26 % 0.32 % 0.38 % 0.48 %		

Certified Reference Material/ Matrix or Artifact	Property Value(s)/ Concentration Ranges	Associated Uncertainty ¹	Test, Analysis, Measurement, Methods	Approach Used to Assign Property Values
Dynamic Viscosity Oil Standards	(36 to 3600) mPa·s (3600 to 36 000) mPa·s (36 000 to 120 000) mPa·s (120 000 to 360 000) mPa·s (360 000 to 8 000 000) mPa·s	0.84 % 1.1 % 1.1 % 1.6 % 1.8 %	ASTM D2171	Glass capillary viscometry
Density Standards	Density: (0.7 to 1.1) g/cm ³	0.05 kg/m ³	ASTM D4052, D1480, D1217	Oscillating U-Tube density meter or pycnometer

Reference Material/ Matrix or Artifact	Property Value(s)	Test, Analysis, Measurement, Methods	Approach Used to Assign Property Values
Flash Point Reference Materials	(45 to 80) °C	ASTM D56	Tag closed cup flash point
	(110 to 300) °C	ASTM D92	Cleveland open cup flash point
	(45 to 230) °C	ASTM D93 Procedure A	Pensky Marten closed cup flash point

¹ In the statement of associated uncertainty, percentage is the percent of reading.



Accredited Reference Material Producer

A2LA has accredited

CANNON INSTRUMENT COMPANY

State College, PA

This accreditation covers the specific materials listed on the agreed upon Scope of Accreditation.

This producer meets the requirements of ISO 17034: 2016 General Requirements for the Competence of Reference Material Producers. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.



Presented this 2nd day of June 2023

Mr. Trace McInturff, Vice President, Accreditation Services

For the Accreditation Council

Certificate Number 1262.02

Valid to May 31, 2025

Revised June 6, 2023