Jayasree Reva Phoenix Metrology Pvt. Ltd.

Calibration | Inspection | Testing | Training | Services

ISO 9001:2015 Certified | ISO/IEC 17025:2017 Accredited

Viscosity Metrology | Training Brochure

INTRODUCTION

Viscosity is the tendency of a Fluid to resist any change in its shape or Motion. It is a measure of the internal forces of a Fluid. The internal forces or Friction of Fluid comes into play when one layer of Fluid is subjected to move over another layer. More is the Friction; more is the amount of force required to move the layers; this is called shear. Shearing occurs when a Fluid moves or is distributed, like pouring, spraying, spreading, mixing, etc.

COURSE FEATURES

Training course covers the following contents:

- Practical & Theoretical Training of Viscosity Calibration
- Specific Criteria & Guidelines Viscosity Calibration
- Estimation and Expression of Uncertainty in Measurement as per NABL 141
- Calibration and Measurement Capability (CMC) and Measurement Uncertainty in Calibration as per NABL 143
- Participation in Proficiency Testing Activities as per NABL 163
- Guidelines for Interlaboratory Comparison as per NABL 164

Viscosity Cup

Zahn Cup

Rotational Viscometer

Flow Cup

TRAINING MATERIAL

Material in soft for Viscosity metrology as per ISO/IEC 17025: 2017, NABL oriented best-in-class training material traceable to National and International Standard requirements.

PRINCIPLE | THEORY

Viscosity is the measure of a fluid's resistance to flow. It is the result of the friction between the fluid molecules and the walls of the container through which the fluid is flowing. Viscosity is typically measured in units of Pascal-seconds (Pa·s) or centipoise (cP). High viscosity fluids are thick and flow slowly, while low viscosity fluids are thin and flow easily. The viscosity of a fluid can be affected by factors such as temperature, pressure, and the presence of impurities.

CALIBRATION RANGE

- Viscosity Cup | Zahn Cup
- Ford Cup | Flow Cup
- Rotational | Krebs | Paddle Viscometer

EXPECTED PARTICIPANTS

- Laboratory Managers
- Calibration and Testing Engineers
- Laboratory Engineers
- Quality Managers
- Metrology Professionals
- NABL Lab Engineers

OBJECTIVES OF VISCOSITY WORKSHOP

- Basic knowledge of calibration such as requirements of calibration, why do we need calibration, equipment selection, types of equipments, metrological traceability, selection of calibration agency etc.
- Understand requirement of ISO/IEC 17025:2017 requirements for measurement uncertainty.
- Understand theory of uncertainty of measurement, selection of uncertainty measurement factors, and calculation of measurement uncertainty.
- Understand the relevance of instrument measurement, including the use of instrument.
- Understand technical requirements and calibration method for relevant instruments.
- Preparation of calibration certificates and work sheet.

COURSE CONTENT

Course content covers the following topics:

- Comprehensive Trainer's Guide
- Power Point Presentation: Viscosity Metrology
- Introduction to Measurements, Fundamental & Derived Units
- Standards Organizations and Document Standards
- Calibration Procedures | Methods | Processes
- Practical example from the trainer selecting the best solution
- Documentation Training as per ISO/IEC 17025: 2017
- Measurement Uncertainty
- Questions & Answers
- Practical examples from your business (In-house courses only)
- Summary & Review

WORKSHOP METHODOLOGY

TRAINING SESSION

Theoretical training on the basics of the subject.

- Viscosity Laboratory

WORKSHOP & TEAM EXERCISES

Case studies from relevant industry samples taken up in line with the guidelines and formats.

- Viscosity Laboratory

GRADED EXERCISE

Graded exercises to evaluate individual participant's progress during the course.

- Viscosity Laboratory

FINAL EXAMS

Business as usual, we have a final examination to evaluate and certify the participants.

CONTINUING SUPPORT

We provide continuing support to new projects and provide project assistance based on client requirements.

CERTIFICATION

- Certificate of course completion to successful participants.
- Attendance for the entire duration of the course is compulsory.

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CC-2428

Dimensional | Pressure | Torque | Force | Hardness | Impact | Mass | Volume | Electro-Technical | Thermal | Acoustics | Acceleration & Speed | Fluid Flow | Optical | UTM | TTM | Tachometer | Anemometer | Durometer | Lux Meter | Push Pull Gauge | Rockwell | Brinell | Vickers | Micro Vickers | Mechanical Testing | Impact Testing : Mechanical Properties of Metals and Non-Metals

JAYASREE REVA PHOENIX 10 YEARS CALIBRATION & TESTING SERVICES

CONTACT US

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