## **Laboratory Services**



## **Viscosity Measurement Service**

Our viscosity measurement service employs the advanced Jikan OVM-10 Optical Viscometer to accurately determine the viscosity of transparent and semi-transparent liquids. This service is essential for various industries, including pharmaceuticals, cosmetics, chemicals, and food processing, where precise viscosity measurements are critical for quality control, formulation development, and process optimization.

The viscosity measurement is conducted using the falling ball method, a reliable and widely recognized technique for determining fluid viscosity. In this process, a sphere of known size and density is released in a column of liquid. The time it takes for the sphere to fall a specific distance through the liquid is measured, allowing for the calculation of the fluid's viscosity. The descent speed of the sphere is directly related to the liquid's resistance, which is used to determine the viscosity.

Our device is equipped with precision optical sensors that detect the passage of the sphere as it moves through the fluid. These sensors are strategically positioned along the measurement column to record the exact time taken for the sphere to pass between set points. This accurate timing is critical for calculating the terminal velocity, which, when combined with the sphere's properties and fluid density, allows for precise viscosity determination.

viscosity measurement service is applicable across a wide range of industries, including but not limited to, pharmaceuticals, cosmetics, food processing, and chemical manufacturing. Accurate viscosity measurements are essential for product development, quality control, and process optimization in these fields.

We offer tailored services to meet specific client requirements, whether it involves special sample handling, customized reporting, or integration with other testing services.

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## **Sample Requirement:**

- Sample Volume: A minimum of 30 mL of the liquid is required for each measurement.
- **Sample Transparency:** The fluid must be transparent or semi-transparent to ensure accurate detection by the optical sensors.
- **Fluid Density:** The density of the fluid must be known or provided, as it is a crucial factor in the viscosity calculation.
- Viscosity Range: The fluid viscosity should fall within the range of 1 to 10,000 cP (or mPa.s).

Our viscosity measurement service offers a reliable, accurate, and cost-effective solution for determining the viscosity of a wide range of fluids. Whether you're in the early stages of product development or conducting routine quality checks, our service provides the detailed insights you need to ensure product consistency and performance.

For details about the test fees or if you have any additional questions, feel free to reach out to us at one of the numbers provided below.

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