



# Viscosity FAQ Guide

## Top 10 Questions Every Lab Should Ask About Viscosity—and the Answers You Need

### Introduction

Viscosity is more than a number—it's a critical property that influences product performance, stability, and customer experience. Yet many labs struggle with understanding the fundamentals and applying best practices. This FAQ guide answers the most common questions we hear from QC managers, R&D scientists, and lab technicians worldwide.

Whether you're new to viscosity testing or looking to refine your process, this resource will help you avoid costly mistakes and improve accuracy.

### FAQ #1: What is viscosity?

Viscosity is a measure of fluid's resistance to flow. High-viscosity fluids (like honey) flow slowly, while low-viscosity fluids (like water) flow easily. It's expressed in centipoise (cP) or Pascal-seconds (Pa·s).

### FAQ #2: Why does viscosity matter for product quality?

Viscosity affects:

- **Texture and feel** (cosmetics, food)
- **Stability and shelf-life** (pharmaceuticals, chemicals)
- **Performance** (lubricants, coatings) Incorrect viscosity can lead to product failure, customer complaints, and regulatory issues.

### FAQ #3: How does temperature affect viscosity?

Temperature changes viscosity dramatically. In most cases as temperature rises, viscosity decreases, as temperature drops, viscosity increases. Always control and record temperature during testing.



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## FAQ #4: What's the difference between dynamic and kinematic viscosity?

- **Dynamic viscosity:** Resistance to flow under an applied force (measured in cP).
- **Kinematic viscosity:** Ratio of dynamic viscosity to fluid density (measured in centistokes).

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## FAQ #5: Which instrument should I use for viscosity testing?

Brookfield offers:

- **DVPlus:** Entry-level, reliable for QC labs.
- **DV2Plus:** Global standard with programmable testing.
- **DVNext:** Advanced rheometer for compliance and R&D.

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## FAQ #6: How do I choose the right spindle?

Spindle selection depends on:

- Sample viscosity range
- Container size
- Desired shear rate Refer to Brookfield's spindle charts for guidance.

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## FAQ #7: What are common mistakes labs make?

- Ignoring temperature control
- Using incorrect spindle or speed
- Skipping calibration checks
- Not allowing samples to equilibrate before testing

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## FAQ #8: How often should I calibrate my viscometer?

At least annually, or more frequently for regulated industries. Brookfield offers calibration services and kits for in-house checks.

## FAQ #9: Can viscosity testing help with regulatory compliance?

Yes. Many standards (ASTM, ISO, FDA) require viscosity data for product approval. Brookfield instruments support compliance with audit trails and CFR features.

## FAQ #10: Where can I find viscosity standards and reference materials?

Brookfield provides certified viscosity standards for instrument verification. These are essential for maintaining accuracy and meeting ISO requirements.

## Conclusion

Understanding viscosity isn't optional, it's essential for quality, compliance, and customer satisfaction. With the right knowledge and tools, your lab can achieve consistent, reliable results every time.



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