Why measure viscosity?

The ability to gather data on a material’s viscosity behavior gives manufacturers an important “product dimension.” Knowledge of a material’s rheological characteristics is valuable in predicting its pourability, its performance in a dipping or coating operation, or the ease with which it may be handled, processed, or used. The interrelation between rheology and other product dimensions often makes the measurement of viscosity the most sensitive or convenient way of detecting changes in color, density, stability, solids content, and molecular weight.

Why Choose Brookfield?

Ease of use, flexibility, reliable performance and quality of service have made Brookfield Viscometers favorites all over the world. All Brookfield Viscometers are accurate within ±1.0% of the range in use and have a reproducibility within ±0.2%. Test results can be duplicated anywhere in the world when the same model instrument is used.

Choices for Instrumentation

This chart shows the Brookfield family of Laboratory Viscometers and Rheometers at a glance. This will help to give you a general idea of what is available before making a decision. The horizontal axis indicates performance capability and features while the vertical axis addresses price level.

Need to measure viscosity in-line? Brookfield also offers a complete line of process viscometers.
Questions to Consider

1. What is the viscosity range of your material: Low, medium, high?
2. What rotational speeds or shear rates are important?
3. How much sample is available for testing?
4. Is temperature measurement/control necessary?
5. Do you need to record the viscosity data?

The Selection Method

The Model Selection Table (shown at right) shows detailed information on standard Brookfield Viscometers/Rheometers, including the Dial Reading, DV-E, DV1, DV2T, and DV3T. The Applications Table (shown at lower right) shows information on typical applications of the standard Brookfield viscosity ranges. There may be industry or supplier/vendor specifications that you need to duplicate. Before making a final selection, we suggest that you confer with people in your industry to find out which Brookfield Viscometer they are using so that your data can be correlated.

In addition, you may wish to call us and discuss your application or refer to our extensive library of technical papers which covers a complete spectrum of applications. We can also test your materials at Brookfield to recommend the instrument most suitable for your application.

Spindles

Standard Brookfield Viscometers/Rheometers are supplied with a standard spindle set constructed of stainless steel (#302). Additional spindle options are available in #316 stainless steel or with Teflon coating for increased corrosion resistance. Other spindles and accessories are also available.

Cylindrical Spindles

Cylindrical spindles are particularly valuable when measuring non-Newtonian fluids and are applicable to any Brookfield Viscometer model with the use of appropriate range tables. Cylindrical spindles may be substituted for standard spindles upon request.

Applications Table

Consider application and viscosity range when selecting model (LV, RV, HA, HB)

LV SERIES – LOW VISCOSITY
- Adhesives (solvent base)
- Biological Fluids
- Chemicals
- Cosmetics
- Dairy Products
- Hot Waxes
- Inks
- Juices
- Latex
- Oils
- Paints and Coatings
- Paper Pulp
- Polymer Solutions
- Rubber Solutions
- Solvents
- Sheet Molding Compound
- Varnish

RV SERIES – MEDIUM VISCOSITY
- Asphalt (SHRP)
- Ceramic Slurries
- Crems
- Dairy Products
- Food Products
- Gums
- Inks (screen printing)
- Organisms
- Paints
- Paper Coatings
- Paste
- Polyurethane
- Plasticizers
- Starches
- Surface Coatings
- Toothpaste
- Varnish

HA/HB SERIES – HIGH VISCOSITY
- Asphalt
- Caulking Compounds
- Chocolate
- Epoxies
- Gels
- Inks (ballpoint, offset, lithographic)
- Molasses
- Pastes
- Peanut Butter
- Putty
- Roofing Compounds
- Sealants
- Sheet Molding Compound
- Tars

**MODEL**

<table>
<thead>
<tr>
<th>LV SERIES – LOW VISCOSITY</th>
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<th>HIGH VISCOSITY</th>
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</table>

** Standard torque range values  M = 1 million

* Minimum ranges can be extended to as low as 1 cP with the use of Brookfield Accessories