

VISCOSITY STANDARDS

Viscosity by Brookfield
the world standard

Viscosity Fluid Standards

Brookfield Viscosity Standards provide a convenient reliable way to verify the calibration of your Brookfield Laboratory Viscometer/Rheometer.

Brookfield Viscosity Standards are Newtonian and they are available as either silicone or oil. Silicone fluids are less temperature sensitive.

Silicone Viscosity Standards

These fluids are most commonly used to verify calibration of Brookfield Viscometers/Rheometers.



Features and Benefits

- ▶ Accuracy: $\pm 1\%$ of Viscosity Value
- ▶ Excellent temperature stability
- ▶ Recommended for use with Brookfield and most other rotational viscometers
- ▶ Most economical
- ▶ Special viscosity values and temperatures available upon request

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General Purpose Silicone Fluids

Brookfield Part #	Nominal Viscosity cP (mPa•s)	Temp °C
5 cps	5	25.0°C
10 cps	10	25.0°C
50 cps	50	25.0°C
100 cps	100	25.0°C
500 cps	500	25.0°C
1000 cps	1,000	25.0°C
5000 cps	5,000	25.0°C
12500 cps	12,500	25.0°C
30000 cps	30,000	25.0°C
60000 cps	60,000	25.0°C
100000cps	100,000	25.0°C

High Temperature Silicone Fluids

These fluids are recommended for use with the Brookfield Thermosel accessory.

Brookfield Part #	Nominal Viscosity cP (mPa•s)	Temp °C	Temp °F
HT30000	30,000	25.0°C	77°F
	9,000	93.3°C	200°F
	4,500	149.0°C	300°F
HT60000	60,000	25.0°C	77°F
	18,000	93.3°C	200°F
	9,000	149.0°C	300°F
HT100000	100,000	25.0°C	77°F
	30,000	93.3°C	200°F
	15,000	149.0°C	300°F

Special Order Silicone Fluids

For our customers needing a nonstandard viscosity or temperature range, our silicone fluids can be modified to meet most requirements.

Viscosity Blends Calibrated at 25°C (77°F)

- ▶ Minimum: 5 cP (mPa•s)
- ▶ Maximum: 60,000 cP (mPa•s)
- ▶ Blends will be within $\pm 2\%$ of requested value

Temperature Calibrations

- ▶ Minimum: 10°C (50°F)
- ▶ Maximum: 80°C (176°F)
- ▶ Minimum temperature increment: 2°C

VISCOSITY STANDARDS

Oil Viscosity Standards

These fluids are used for specific instruments using cone/plate or Krebs spindle geometry. Also, certain industries may require use of oil standards.



Features and Benefits

- ▶ Accuracy: $\pm 1\%$ of Viscosity Value
- ▶ Appropriate for use at shear rates greater than 500 sec^{-1}
- ▶ Recommended for use with cone/plate Viscometers at viscosities above 5,000 cP
- ▶ Recommended for Brookfield CAP series and KU-I+ Viscometers
- ▶ Brookfield oil viscosity standards are hydrocarbon based, either mineral oil or polybutenes.

Note: Other oil fluids are available - call for details

Brookfield Viscosity Standards are accurate to $\pm 1\%$ of the stated viscosity and are certified by methods traceable to the United States National Institute of Standards and Technology (NIST). The selection of one or two fluids will normally provide sufficient measurement points to verify calibration of your instrument. All fluids are supplied in 1/2 liter (1 pint) containers complete with a certificate of calibration. CAP Oil Fluids are supplied in 150 mL (4 oz) container.

CAP Oil Fluids

For calibrating CAP Series cones each spindle has its own fluid

E.g. CAP1L fluid is for use with CAP 01 spindle on a low temperature CAP viscometer.

The Brookfield Part # indicates the specific CAP spindle which is used with the fluid.

Brookfield Part #	Viscosity cP (mPa•s)	Low Temp °C	Brookfield Part #	Viscosity cP (mPa•s)	High Temp °C
CAP1L	89	25.0 °C	CAP1H	89	60.0 °C
CAP2L	177	25.0 °C	CAP2H	177	60.0 °C
CAP3L	354	25.0 °C	CAP3H	354	60.0 °C
CAP4L	708	25.0 °C	CAP4H	708	60.0 °C
CAP5L	1417	25.0 °C	CAP5H	1417	60.0 °C
CAP6L	3542	25.0 °C	CAP6H	3542	60.0 °C
CAP7L	1328	25.0 °C	CAP7H	1328	60.0 °C
CAP8L	5313	25.0 °C	CAP8H	5313	60.0 °C
CAP9L	21250	25.0 °C	CAP9H	21250	60.0 °C
CAP10L	236	25.0 °C	CAP10H	236	60.0 °C

KU-1+ Oil Fluids

Brookfield Part #	Nominal Viscosity Krebs Units	Temp °C
KU64	64	25.0 °C
KU79	79	25.0 °C
KU84	84	25.0 °C
KU95	95	25.0 °C
KU106	106	25.0 °C

General Purpose Oil Fluids

Brookfield Part #	Nominal Viscosity cP (mPa•s)	Temp °C
B31	31	25.0 °C
B210	210	25.0 °C
B750	750	25.0 °C
B1400	1,400	25.0 °C
B2000	2,000	25.0 °C
B11000	11,000	25.0 °C
B20000	20,000	25.0 °C
B80000	80,000	25.0 °C
B200000	200,000	25.0 °C
B420000	420,000	25.0 °C