

# Viscosity Standards

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

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

Note: AMETEK Brookfield recommends that all fluids be replaced annually

## Silicone Viscosity Standards

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

*Accuracy: ±1% of viscosity value*

*Excellent temperature stability*

*Recommended for use with AMETEK Brookfield and most other rotational viscometers*

*Most economical*

*Special viscosity values and temperature calibrations available upon request*



## VisCal Kit

The VisCal Kit provides all the necessary items to verify calibration of your Viscometer/Rheometer.

Includes AMETEK Brookfield 600mL Beaker, 1 pint of Silicone Viscosity Standard, Dispensing Bottle for cleanup and Trapper Cleaning Agent.\*

\*Trapper Cleaning Agent available only in shipments within the USA



## Plastic VisCal Kit

The AMETEK Brookfield Plastic VisCal Kit provides all the necessary items to verify calibration of your Viscometer/Rheometer in a glass-free environment. Includes AMETEK Brookfield 600mL Plastic Beaker, 1000ml of Silicone Viscosity Standard (5-12,500 cP) in a plastic bottle and a AMETEK Brookfield-designed metal lid for anchoring beaker in the temperature bath.



### General Purpose Silicone Fluids

Brookfield Part #	Nominal Viscosity cP (mPa•s)	Temp °C	Temp °C
5 cps	5	20.0°C	25.0°C
10 cps	10	20.0°C	25.0°C
50 cps	50	20.0°C	25.0°C
100 cps	100	20.0°C	25.0°C
500 cps	500	20.0°C	25.0°C
1000 cps	1,000	20.0°C	25.0°C
5000 cps	5,000	20.0°C	25.0°C
12500 cps	12,500	20.0°C	25.0°C
30000 cps	30,000	20.0°C	25.0°C
60000 cps	60,000	20.0°C	25.0°C
100000cps	100,000	20.0°C	25.0°C

### High Temperature Silicone Fluids

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 ±2% of requested value

### TEMPERATURE CALIBRATIONS

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

## 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.

*Accuracy: ±1% of viscosity value*

*Appropriate for use at shear rates greater than 500 sec<sup>-1</sup>*

*Recommended for use with cone/plate Viscometers at viscosities above 5,000 cP*

*Recommended for AMETEK Brookfield CAP series and KU-3 Viscometers and RST Rheometers*

*AMETEK Brookfield oil viscosity standards are hydro-carbon based, either mineral oil or polybutenes*



Note: Other oil fluids are available – call for details

AMETEK Brookfield Viscosity Standards are accurate to ±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) containers

### CAP Viscometer Oil Fluids For calibrating CAP Series cones each spindle has its own fluid

Cone Spindle	HIGH TORQUE CAP				LOW TORQUE CAP			
	Low Temp 25°C		High Temp 60°C		Low Temp 25°C		High Temp 60°C	
	Brookfield Part #	Viscosity cP (mPa•s)	Brookfield Part #	Viscosity cP (mPa•s)	Brookfield Part #	Viscosity cP (mPa•s)	Brookfield Part #	Viscosity cP (mPa•s)
1	CAP1L	89	CAP1H	89	CAP0L	57	CAP0H	57
2	CAP2L	177	CAP2H	177	CAP1L	89	CAP1H	89
3	CAP3L	354	CAP3H	354	CAP2L	177	CAP2H	177
4	CAP4L	708	CAP4H	708	CAP3L	354	CAP3H	354
5	CAP5L	1,417	CAP5H	1,417	CAP4L	708	CAP4H	708
6	CAP6L	3,542	CAP6H	3,542	CAP5L	1,417	CAP5H	1,417
7	CAP7L	1,328	CAP7H	1,328	CAP1L	89	CAP1H	89
8	CAP8L	5,313	CAP8H	5,313	CAP3L	354	CAP3H	354
9	CAP9L	21,250	CAP9H	21,250	CAP5L	1,417	CAP5H	1,417
10	CAP10L	236	CAP10H	236	CAP2L	177	CAP2H	177

### HOW TO SELECT A CAP FLUID

- Determine which viscometer is being used: High Torque or Low Torque.
- Determine which temperature model is being used: Low Temperature (5°C-75°C) or High Temperature (50°C-235°C)
- Determine which cone is being used.

### Krebs Viscometer Oil Fluids

Brookfield Part #	Nominal Viscosity Krebs Units	Temp °C
KU61	61	25.0°C
KU73	73	25.0°C
KU87	87	25.0°C
KU99	99	25.0°C
KU106	106	25.0°C

### General Purpose Oil Fluids

Brookfield Part #	Nominal Viscosity cP (mPa•s)	Temp °C
B29	29	25.0°C
B200	200	25.0°C
B400	400	25.0°C
B600	600	25.0°C
B1060	1,060	25.0°C
B2000	2,000	25.0°C
B10200	10,200	25.0°C
B21000	21,000	25.0°C
B73000	73,000	25.0°C
B200000	200,000	25.0°C
B360000	360,000	25.0°C

### RST Rheometer Oil Fluids (calibrated at 25.0°C)

Cone Spindle	Brookfield Part #	Nominal Viscosity cP (mPa•s)
RCT-25-1	B41000	41,000
RCT-25-2	B73000	73,000
RCT-50-1	B10200	10,200
RCT-50-2	B21000	21,000
RCT-75-1	B4900	4,900
RCT-75-2	B10200	10,200

### RST Rheometer Oil Fluids (calibrated at 25.0°C)

Coaxial Spindle	Brookfield Part #	Nominal Viscosity cP (mPa•s)
CCT-DG	B200	200
CCT-40	B2000	2,000
CCT-25	B10200	10,200
CCT-14	B73000	73,000
CCT-8	B360000	360,000