

# Viscosity 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 than oil fluids.

Note: Brookfield recommends that all fluids be replaced annually

## Silicone Viscosity Standards

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

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 temperature calibrations available upon request



## VisCal Kit

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



### 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

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

## 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.

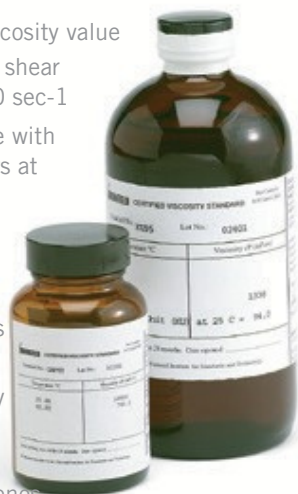
Accuracy:  $\pm 1\%$  of viscosity value

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 Brookfield CAP series and KU-2 Viscometers and RST Rheometers

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) containers

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

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

## 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

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

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