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INSTRUCTIONS
CALIBRATION CHECK KIT for RHEOMETERS
PART No. 132-49

The OFI Calibration Check Kit is used to verify the calibration of any viscosity measuring device.

Equipment:

#130-21	Cup, Stainless Steel, for Viscometers
#Order	Lid for Viscosity cup, Brass
#Order	Micro-Wipes, Box
#132-80	*Calibration Fluid, Silicone, 100 cP, "Certified". 16 oz
#154-24	Thermometer, 0 - 30° C (ASTM 90C)

*The Silicone Calibration Fluid may come into contact with the skin with no danger to the user. However, *this fluid must be kept out of the eyes*. If there is fluid on the hands, do not rub eyes as this may cause problems. Always keep fluid containers covered and work in a well ventilated area to minimize eye irritation. Always be certain that the device to be checked is clean before using again. The cup and lid should always contain the same calibration fluid and should not be mixed with any other centipoise fluids. If more 100 cP fluid is ordered, do not mix the new fluid with the old fluid as there may be slight variations among different batch numbers of fluids.

Procedure:

1. Remove the Rheometer Sleeve. Sleeves and Bobs should never be interchanged from one Rheometer to another. Clean and polish the sleeve, bob and the shaft with a kimwipe, Kleenex or clean towel and replace the sleeve onto the Rheometer.
2. Remove the 100 cP fluid cup lid and be sure the 100 cP fluid is within 1/2 inch of the scribed line in the cup. Carefully lower the sleeve and bob into the calibration fluid and adjust the level so that when the sleeve is turning at 300 rpm's, the scribe mark on the sleeve is at the surface level of the fluid.
3. Slide the thermometer into the cup until the bulb touches the bottom, and secure the thermometer to the cup with a clip or tape. Unsecured thermometers tend to get broken.
4. Turn on the Rheometer and let it run at 300 rpm's for 3 minutes for the temperature to equalize with the bob, sleeve and the fluid. Read and record the dial deflection at 300 rpm, and then operate at 600 rpm's and record this reading. Also record the temperature as indicated on the thermometer to the nearest 0.1°C.
5. Find the theoretical 300 rpm reading on the calibration chart, by locating the temperature and taking the corresponding centipoise viscosity. The 600 rpm reading obtained in step 4 above should be within $\pm 3^\circ$ of twice the 300 rpm reading.
6. When finished, use a kimwipe, Kleenex or clean towel and carefully wipe clean the inner and outer surfaces of the sleeve, bob, the thermometer and the workbench. Put the lid back onto the 100 cP fluid cup and put all materials away.