

INSTRUCTIONS:
SIX SPEED VISCOMETERS – MODEL 600A & 600SA, OFITE
PART No. 130-60,70

<u>Part No.</u>	<u>Volts</u>	<u>HZ</u>	<u>Amps</u>	<u>Rotor Speed – RPM</u>	<u>Size</u>	<u>Weight</u>
130-60- x	115	60	.75	3,6,100,200,300 &600	15.2h x 6w x 10.5d” (39 x 15 x 27 CM)	15 lbs. (6.8 Kg)
130-70 x	115	50	.60	3,6,100,200,300 & 600	15.2h x 6w x 10.5d” (39 x 15 x 27 CM)	15 lbs. (6.8 Kg)

“OPTIONAL EQUIPMENT”

<u>Part No.</u>	<u>Description</u>
130-71	plastic carrying case for six-speed viscometers
130-74	step down transformer for 230V operation
130-38	thermo-cup 115V
130-38-1	thermo-cup 230V

OPERATION

1. Connect instrument to proper power source.
2. Place a recently stirred sample of test fluid in sample cup and immerse the rotor sleeve exactly to the scribed line. Tighten the lock nut on the platform.
3. With the motor running and the motor speed switch in the high position, push the gear shift (red knob on top) all the way down to 600 RPM. Wait for the dial reading to reach a steady value and record the 600 RPM reading.
4. With the gear shift still all the way down, switch the motor speed switch to the low position, 300 RPM and record the steady dial reading.
5. In order to measure the 10-second gel strength (at 3 RPM), pull the gear shift up to the middle position and shut the motor off. Then allow the test fluid to remain quiescent for 10 seconds. After 10

seconds, turn the motor on to the low speed position. The maximum reading attained after starting rotation is the initial gel strength. Record the initial gel strength (10 second gel) in lb/100 ft(2) (Pa).

6. Restir test fluid at high speed (600RPM) for 10 seconds before allowing it to remain quiescent for 10 minutes. Repeat the gel measurement as before and report the maximum reading as 10 minute gel in lb/100ft(2) (Pa).

CALCULATION

Plastic viscosity,cp = 600 RPM reading – 300 RPM reading

Yield point, lb/100 ft(2) = 300 RPM reading – plastic viscosity

Apparent viscosity,cp = $\frac{600 \text{ RPM reading}}{2}$

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REMARKS

1. The sleeve and bob should be washed and dried after each operation.
2. Keep the instrument upright when cleaning so that water does not get into the bearings.
3. Refer to name plate for speed changing instructions.
4. Rotor can be removed from socket by twisting CCW while gently pulling straight down.
5. Bob shaft end is tapered and fits a matching hole in bob. Twist bob while pulling downward to remove.
6. To prolong life of bob shaft bearings, make sure splash guard is in place before testing fluids.

CAUTION: The bob is made hollow to lessen weight on the torsion assembly. Maximum operating temperature is 200 degrees F (93 deg. C). Liquid trapped inside a hollow bob may vaporize when immersed in high temperature fluid and cause the bob to explode.

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