

## HIGH PERFORMANCE ROTATIONAL VISCOMETER

Apparent viscosity of unfilled asphalt is evaluated by a rotational viscometer which measures the torque generated by a calibrated spindle rotating at a selected speed into a bitumen sample heated at precise temperature in the range between ambient temperature to 260°C. The measured relative resistance to rotation is converted, by a factor, in viscosity units, cP or mPa.s.



**HIGH PERFORMANCE ROTATIONAL VISCOMETER**

### SPECIFICATION

Precision:  $\pm 1\%$  of full scale

- Resolution: 1 For viscosity equal to or above 10.000 cP: 1
- Repeatability: 0.2%
- Thermometer features:
- Temperature margins: 0o C to +100o C 32o F to 212.0 o F
- Resolution: 0.1o C / 0.1722 o F
- Precision: +/- 0.1 o C
- Type of probe: PT100
- Supplied at 100-240 VAC, 50/60 Hz Shipping weight: approx. 8 kg

**Viscosity ranges (mPa.s)**

**Spindle models**

|      |             |
|------|-------------|
| TR8  | 50 – 170 K  |
| TR9  | 250 – 830 K |
| TR10 | 500 – 1.7 M |
| TR11 | 1 K – 3.3 M |

## STANDARDS

- ASTM D4402
- AASHTO T316
- EN 13302
- ASTM D2196

## FEATURES

- Selected speed r.p.m.
- Selected spindle SP
- Viscosity reading cP (mPa-s) or cSt
- Percentage of full scale %
- Sample temperature °C or F
- Shear Rate (with coaxial spindles) SR (s<sup>-1</sup>)
- Shear Stress (with coaxial spindles) SS (N/m<sup>2</sup>)
- Density (introduced by the user) g/cm<sup>3</sup>
- Viscosity reading: dynamic viscosity (cP or mPa-s) or kinematics viscosity (cSt).
- Unit converter SI to CGS.
- Program features:
  - Time to torque & Time to stop
  - 9 working memories
  - Customizable speed options
  - Multistep
  - Ramp
  - AUTO-TEST: automatical internal viscosimeter checking
  - AUTO-RANGE: full scale range for combination spindle speed.
  - Temperature reading by PT100.
  - User-enabled viscosity and temperature calibration.
  - 10 language options.

## ACCESSORIES

### 81-PV0118/T

Temperature control unit for rotational viscometer. Temperature range from ambient plus 5°C to 300°C. 220-240V/50-60Hz/1Ph.

**81-PV0118/TZ**

Temperature control unit for rotational viscometer. Temperature range from ambient plus 5°C to 300°C. 110V/60Hz/1ph

**81-PV0118/2**

Aluminum disposable test chamber

**81-PV0118/3**

Stainless steel reusable test chamber

**81-PV0118/4**

Set of special spindles for APM and thermosphere (TR8, TR9, TR10, TR11) Range: "R": (40 - 400.000) cP, "H": (2 - 32.000) Poise Material: Stainless steel. 316 Suitable for viscometer R yH

**ORDERING CODE****81-PV0118/B**

Rotational Viscometer, high performance version. 100-240V/50-60Hz/1ph.



