

TE-DPV[®] is an automated, thermoelectrically cooled rotational digital paddle viscometer for measuring the dynamic viscosity of emulsified asphalts, marine fuels and other non-homogenous materials at 25 °C, 40 °C, 50 °C, 80 °C and 100 °C. The TE-DPV provides a convenient, automated alternative to older, labor-intensive and less precise methods.

Common Applications

- Emulsified asphalts
- Marine fuels
- Suspensions
- Slurries
- Foods
- Paints
- Residual oils

TE-DPV[®]

Thermoelectric Rotational Paddle Viscometer

For Dynamic Viscosity of Non-Homogenous Materials including Emulsified Asphalts
ASTM D7226, ASTM D2397, ASTM D977 and AASHTO T 382

Product Features & Benefits

Designed specifically for viscosity testing of non-homogenous materials

- Meets ASTM D7226, D2397, D977 and AASHTO T 382 for asphalt emulsions
- Viscosity range: 30 mPa·s (cP) to 3,000 mPa·s (cP)* ± 5% accuracy
- Integrated heating and cooling enables dynamic viscosity measurement at 25 °C, 40 °C, 50 °C, 80 °C and 100 °C ± 0.1°C
- Digital display presents viscosity values in mPa·s (cP) as well as mm²/s (cSt) for samples with known density values

Improves data quality

- Automated sample processing and testing reduces the impact of operator skill on data quality
- Paddle continuously mixes the sample for greater homogeneity and more representative data
- Direct measurement of sample, rather than bath, temperature, improves measurement accuracy
- Viscosity data is automatically calculated and may be transferred to an optional dot matrix printer

Eliminates laborious and tedious methodologies

- Simply load the sample and push a button to initiate testing
- Removable sample cup makes cleaning between samples quicker and easier
- Enables unattended sample processing
- Completes most tests in 10 to 30 minutes

Reduces safety risks

- No hot dripping sample; no glass components or accessories
- Wipe-clean paddle and sample cup reduce the need to use hazardous cleaning solvents
- Heater cup thermostat senses over-temperature fault conditions and removes power until temperature reaches a safe level
- Motor shaft and paddle immobilization automatically cut off motor power

Low cost, easily transportable design

- Self contained, compact instrument requires no ancillary equipment
- At 1/7 the benchtop footprint and 1/3 the weight of traditional Saybolt viscometer baths, the TE-DPV conserves valuable lab space and transports easily for field applications

*For tests above 3,000 mPa·s (cP) consider the CANNON[®] DPV



TE-DPV® Thermoelectric Rotational Paddle Viscometer

Ordering Information

TE-DPV® Thermoelectric Rotational Paddle Viscometer consists of the viscometer with adjustable heated tray assembly and head unit, two reusable sample cups, two sample paddles and one N100 viscosity standard. Optional printer sold separately.

Description	Part #
100 VAC to 240 VAC, 47 to 63 Hz	9725-F72

Accessories & Consumables

Description	Part #
Replacement sample cup	17.4003
Replacement sample cup (case of 300)	17.4210
Replacement sample paddle	17.4004
N100 oil viscosity standard (500 mL)	9727-C42.016
Compact dot matrix impact printer	82.0067

Product Specifications

Dimensions (W x D x H)	23.5 cm x 27.3 cm x 45.1 cm (9.3 in x 10.8 in x 17.8 in)*
Weight	10.0 kg (22.0 lb)
Shipping dimensions (W x D x H)	38.1 cm x 40.6 cm x 53.3 cm (15.0 in x 16.0 in x 21.0 in)
Shipping weight (with all items)	16.3 kg (36.0 lb)
Max throughput	2-4 samples per hour
Automated sample capacity	1
Viscosity range & accuracy	30 mPa·s (cP) to 3,000 mPa·s (cP) ± 5%
Test temperatures & accuracy	25 °C, 40 °C, 50 °C, 80 °C, 100 °C ± 0.1°C
Minimum sample volume	135 mL per test
Operating conditions	15 °C to 30 °C, 10% to 75% relative humidity (non-condensing), Installation Category II; Pollution Degree 2
Electrical specifications	100 VAC to 240 VAC, 47 to 63 Hz; 120 watts power consumption
Compliance	CE Mark; EMC directive (2004/108/EC); Low voltage directive (2006/95/EC); HI-POT (1900 VDC, 60 sec.); ROHS
Data output	RS-232

*15 cm rear clearance required

CANNON Instrument Company® provides a variety of physical property testing equipment and consumables (vials, bath fluids, and reference materials) for your testing needs. To learn more, contact sales@cannoninstrument.com.



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