NPM 450

AUTOMATED FLASH POINT

BY PENSKY-MARTENS CLOSED CUP TESTER



STANDARDS

ASTM D 93, IP 34, ISO 2719, NF M07019, DIN 51758, GBT 261, JIS K 2265-3 and related methods.

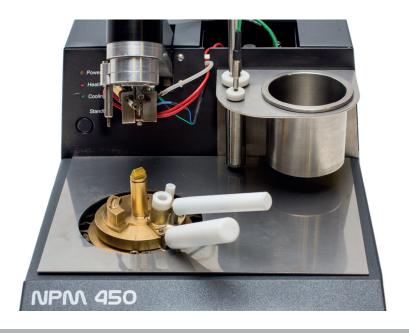
SCOPE

These test methods cover the determination of the flash point of petroleum products in the temperature range from 40 $^{\circ}$ C to 370 $^{\circ}$ C, and the determination of the flash point of biodiesel in the temperature range of 60 $^{\circ}$ C to 190 $^{\circ}$ C. Flash point is used in shipping and safety regulations to define flammable and combustible materials.





NPM 450 is the 5th generation of automated flash point developed by Normalab. Normalab has been designing and manufacturing petroleum testing instruments and glassware since 1963.



« EFFICIENT AND COMPACT **UNIT >>**

SPECIFICATIONS

- Capacitive touch screean (6,4 inch HD)
- One hand easy operation
- Sample cup, probe, thermocouple holder stand
- Test temperature range: 0 to 410°C
- Unique combine ignition system (electric and gas)
- Standard methods: A, B, C
- Integrated barometric correction
- Flash point detection by thermocouple
- Automatic gas flame relighting
- User programmable methods
- Heavy sample preheating and automatic strirring
- Fast heating and cooling



CONNECTION

- 4 USB ports
- 1 RS232C port or LIMS
- 2 LAN ports
- 1 VGA port

*Photos are non-contractual - they may differ from actual products





| Flash Point: 0.0 °C Corrected FP.: 0.0 °C | |
|---|-----------------|
| Sample ID: SAMPLE 001 Method: Method A Exp. Flash Point: 65.0 °C | Select function |
| Barometric Pressure: 992 mBar Min. Heating Speed: 2.9 °C/min | Send to |
| Max. Heating Speed: 5.6 °C/min | Trends |
| Start time: 06/04/16 08:56:57 de. Duration: 11 min, 14 sec Operator Name: ADMIN | DONE |



Safety option REF: 60410

SAFETY FEATURES

- Illuminated extinguisher push button
- Gas flame detection
- Over-temperature protection
- Built in gas leak detector

SOFTWARE FEATURES

- One hand easy operation
- Windows 8 operating system
- Lifetime data storage 16 GByte SSD
- Reporting: PDF, Email, LIMS, Excel, Word...
- Different access level settable (Operator supervisor or Maintenance...)

EASY CONFIGURATION

Access from basic to advanced parameters made easy through the intuitive software and large screen.

- Data export through USB, LIMS, PDF or e-mails.
- User and password settings
- Data transfer to local printer
- Product files configuration

ACCESSORIES

For safety purpose, an Automatic N2 fire extinguisher option is available. This extinguishing system allows a fire to be switched off by smothering. The inert gas extinguishing system uses nitrogen. It acts on fire by reducing the oxygen content without risk for human health under normal conditions of use.

Its diffusion during emission is very fast and its density comparable to that of air (composed of 78% nitrogen) allows a durable maintenance of the extinction concentration, unlike extinguishing agents with a higher density than air.

ORDERING INFORMATION

Fully automated Pensky Martens Flash Point tester

NPM 450 operable through integrated touchscreen and Windows 8 based software.

Scope of delivery:

The NPM 450 delivered ready to use with:

60400

- Cup (P/N 60346)
- Cover (P/N 60447)
- Pt 100 probe (P/N 60453)
- Detection thermocouple cable (P/N 60448)
- Electric ignitor (P/N 60480)

Site requirements:

- Power supply: Ac 110/2400 V, 50/60 Hz 4 A
 Dimension: (W) 260 x (D) 460 x (H) 185 mm
- Weight: 12 kg

Propane/Butane pressure: mini 20 to 40 mBar max

SUMMARY

Flash point range

Heating rate

Safety stop

Ignition

Electric ignition

Stirring speeds Flash detection

Cooling

0 to 410°C

0 to 15°C/min

0 to 30°C (above expected

flash point)

Electric and gas

Regulated / monitored

50 to 300 RPM (+/-3 RPM)

Thermocouple

Integrated - Forced air

Gas connections

Automatic switch off

Hydrocarbon detection

Overheating protection

Real time clock

Fire detection

Extinguisher push button

Automatic fire extinguisher

Propane / Butane, Nitrogen

Integrated

Integrated

Integrated 600°C

Integrated

Ionization

Integrated & illuminated

Integrated (nitrogen network or

optional bottle)



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