

PERFORMANCE
YOU CAN RELY ON

eralytics



NEW!

Peltier Boost Technology™
Patented high-speed heating
and cooling technology
-25 to 420°C (-13 to 788°F)

One Flashpoint Tester for All Applications:

Fresh & used oils including fuel dilution measurement
Diesel & jet fuel, FAME (biodiesel), asphalt & bitumen
Flavors & fragrances, paints & varnishes, solid & liquid waste
Mobile laboratories, military applications, flash/no flash tests
all this with a single analyzer in full compliance with the
safest flashpoint standards ASTM D6450 & D7094, with proven
correlation to ASTM D93 & EN ISO 2719

ERAFLASH

THE SAFE SIDE OF FLASHPOINT TESTING



*Only 1-2 mL of Sample
Continuously Closed Cup
No Open Flame
Fast & Easy Cleaning*



*For ASTM D7094 the ASTM
Flashpoint Committee of-
ficially states that there is **no
statistically significant bias**
observed compared to ASTM
D93 Procedure A.*

Maximum Safety

To meet the strict safety requirements in today's high-tech laboratories, ERAFLASH operates in full compliance with the **safest Continuously Closed Cup Flash Point (CCCFP) methods ASTM D6450 and D7094**. In fact, we have taken CCCFP to the next level. Not only does the small measuring chamber that requires **only 1-2 ml of sample** remain closed at all times during measurement. There are **no open flames or glowing wires** at all in the ERAFLASH. Instead, the flashpoint is detected by pressure measurement inside the closed measuring chamber. Naturally, this design completely prevents the risk of fire or hazardous fumes. The fully heat-insulated sample cup holder is safe to touch even after measurements at very high temperatures.

Minimum Maintenance

Cleaning after measurements often took time and involved maintenance activities or replacing sensors or other elements of the chamber assembly. ERAFLASH is different. Its innovative **CPT-Contamination Prevention Technology™**, a combination of an advanced electrode protection and self-cleaning ignition system, **reduces cleaning & maintenance to an absolute minimum.**

Reliable Precision

ERAFLASH makes fully automated flashpoint measurements in strict accordance with the latest flashpoint standards **ASTM D6450 & D7094**.

For your convenience, ERAFLASH additionally offers several **correlation methods, which cover all major closed cup methods as well as flash/no flash methods**. The correlation methods were developed by eralytics' internationally renowned flashpoint specialists, Mr. Andreas Schwarzmann and Dr. Roland Aschauer, who are both long-term members of the ASTM D02.08 flashpoint group. As a result, an extensive list of standards can be selected on the ERAFLASH (c = correlation):

- ASTM D6450 – Continuously Closed Cup
- ASTM D7094 – Modified Continuously Closed Cup
- ASTM D93c, EN ISO 2719c, DIN 51758c, IP 34c, JIS K 2265c – Pensky Martens Closed Cup
- ASTM D56c – TAG Closed Cup
- ISO 13736c & IP 170c – Abel Pensky Closed Cup
- EN ISO 3679c & 3680c, ASTM D3828c – Small Scale Closed Cup and Flash/No Flash methods



High-tech for High Performance

*The patented **PBT - Peltier Boost Technology™** by eralytics opens a new dimension of flashpoint testing. Unrivaled measuring speed complements the widest temperature range ever achieved in a single instrument.*

High Speed

The innovative **PBT Peltier Boost Technology™**, a patented eralytics innovation, allows for previously unmatched heating and cooling rates. The Peltier elements are arranged above the measuring chamber following a revolutionary concept developed by eralytics' innovative R&D team. Paired with the conveniently small size of the sample cup this new design allows **turnaround times that are significantly shorter than those offered by all other instruments** available on the market.

Unmatched Range

PBT enables measurements in the temperature range below 0°C and in excess of 200°C without the need to change to a new instrument. This makes the ERAFLASH the first flashpoint tester worldwide to cover the **full temperature range of -25 to 420°C (-13 to 788°F) in a single analyzer**. Moreover, measurements down to 0°C require no additional external cooling. This unmatched temperature range combined with the typically small footprint of an eralytics analyzer saves laboratory bench space and makes mobile testing more economical than ever before.

ERAFLASH



A Single ERAFLASH...

Standard Model:

EF01 ERAFLASH Flashpoint Tester

Temperature range: -25 to 200 °C (-13 to 390 °F)

Temperature Extension Module:

EF01-HTM High Temperature Module

This module is the temperature extension for the ERAFLASH flashpoint tester to include the range between 200 to 420 °C (390 to 788 °F). It extends the standard measuring range to the **total temperature range of -25 to 420 °C (-13 to 788 °F)**. ERAFLASH can be easily upgraded anytime to include this high-temperature functionality.



...for All Applications



ERAFLASH is the most flexible flashpoint tester for **reliable measurements of all kinds of liquids and solids** today on the market. A small footprint, true portability and its rugged aluminum design are **ideal for stationary and mobile laboratories**.

ERAFLASH also is the instrument of choice for demanding tests, including but not limited to fresh and used oil analysis (**fuel dilution curve measurement**), product specifications, transport classifications (D.O.T., ADR), forensic analysis, FAME (biodiesel), recycled fuels, hazardous waste (RCRA), etc.

The **cost savings for expensive samples and for waste disposal** as well as the easy cleaning due to the small sample volume make the ERAFLASH also the preferred flashpoint tester for the **flavors & fragrances**, the **cosmetics**, the **paints & varnishes** and the **bitumen & asphalt industries**.

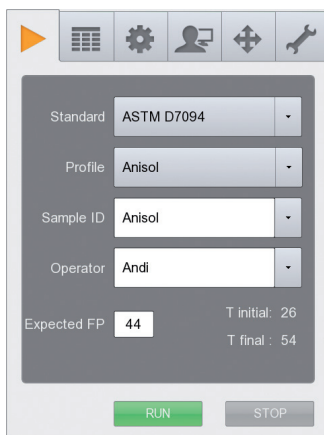
The display of the **Combustion Graphics™** on the large color touch screen is ideal for R&D applications and for the contamination analysis of demanding samples that contain only small amounts of flammable compounds (e.g. **FAME / biodiesel**).

Technical Specifications

Available Test Methods	ASTM D6450 & D7094
Pre-programmed Correlation Methods	ASTM D93c, EN ISO 2719c, DIN 51758c, IP 34c, JIS K 2265c – Pensky Martens Closed Cup ASTM D56c – TAG Closed Cup ISO 13736c & IP 170c – Abel Pensky Closed Cup EN ISO 3679c & 3680c, ASTM D3828c – Small Scale Closed Cup and Flash/No Flash methods
Speed Tests	Flash/no flash and fast screening test programs
PBT - Peltier Boost Technology™	High speed heating & cooling -25°C to 420°C (-13 to 788°F) with a single analyzer
CPT-Contamination Prevention Technology™	Advanced electrode protection and self-cleaning ignition system to reduce cleaning and maintenance to an absolute minimum
Combustion Graphics™	Display of combustion characteristics for contamination analysis
QuickCal™	Dry Block Calibration with eralytics unique directly attached Temperature Calibration Block (EF01-TCB) for maximum precision Certified Reference Material Calibration program for fast on-site calibration
Fuel Dilution Program	Automatic fuel dilution measurement for the analysis of used engine oils
Temperature Range	0 to 200°C (-13 to 390°F) stand alone. No external cooling is required. -25°C to 0°C (-13 to 32 °F) with water cooling / chiller 200°C to 420°C (390 to 788 °F) with optional High Temperature Module (EF01-HTM)
Temperature Stability	0.1°C (0.02°F)
Sample Throughput	Up to 12 samples per hour
Sample Volume	1 ml (ASTM D6450); 2 ml (ASTM D7094)
Interfaces	Built-in PC with Ethernet, USB and RS232 interfaces Direct LIMS connectivity via LAN and output to printer or PC
Remote Control	Remote service capability via Ethernet interface
Result Database	Over 100,000 detailed test reports stored in internal memory
Operators	Over 100 operator names memorized
PC Software	ERASOFT RCS - remote control Windows software for multi-instrument remote control, networking, convenient data transfer and result analysis
Alarm Tracking	All alarm messages are stored in the database together with the result
Power Requirements	Auto-switching 85-264 V AC, 47-63 Hz, 100 W (multi-voltage power supply) Field application: 12 V/9A DC (vehicle battery)
Dimensions / Weight	22 x 32 x 28 cm (8.7 x 12.6 x 11 in) / 8 kg (17.6 lb)

Due to continuing product development, specifications are subject to change.
All eralytics products are manufactured under ISO 9001 regulations and are CE compliant.

PERFORMANCE YOU CAN RELY ON



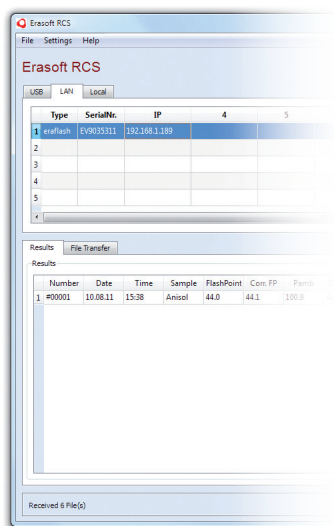
Fast & Easy Operation

All eralytics analyzers use an intuitive menu structure that is easy to navigate. Samples need no prior preparation and measurements are done fully automated.

The results are displayed immediately after the test on the **large and user-friendly color touch screen**. The internal memory holds thousands of measurement results. For convenience, data can be directly **saved to USB memory sticks** for further processing or a thorough analysis. The data format is compatible with most PC spreadsheets, such as Microsoft® Excel. Customized print-out designs are available for easy direct printing.

Flashpoint testing in four easy steps with the ERAFLASH

- Select the Standard
- Select/enter the Sample ID and the Operator
- Load the Sample Cup
- Press RUN to start the fully automated measurement



ERASOFT RCS *Remote Control PC Software*

The RCS software by eralytics is the ideal tool for **operating one or more eralytics analyzers via a PC**. As an alternative to LIMS, it allows for convenient data transfer and fast analysis of results. It ideally supports the cutting-edge technology and functionalities built into the eralytics instruments.

- Multi-instrument networking
- Remote control
- Fast & easy data transfer (results, settings, spectra, libraries, etc.)
- Software upgrade
- Backup/restore for configurations and unit parameters
- Convenient analysis of quality-check tracking data

Compact Stand-Alone Analyzer

All eralytics instruments are compact stand-alone analyzers with a built-in industrial PC. They represent the latest in technology, designed for long-term, maintenance-free operation. Of course, all eralytics analyzers use cutting-edge industry technology and provide universal data transfer options. **Ethernet and USB interfaces allow advanced data management** and connectivity to PCs, modern printers, keyboards, PC-mice, barcode readers, or other external equipment.

Direct LIMS Communication

A direct out-of-the-box connection to LIMS (Laboratory Information Management System) is established with a standard Ethernet cable. **No extra software or PC is needed.**

True Portability

The small footprint and the rugged aluminum housing of the eralytics instruments make them the first choice for use in the lab and on-site. Lightweight and built with an integrated carrying handle they are **ideally suited for mobile applications.**

Large Results Memory

Data are stored safely in the large results memory, which holds many thousand records. Six user levels and a state-of-the-art password technology protect your test result data from accidental deletion.

Service and Remote Control over the Internet

At the push of a button, firmware and software updates can be downloaded from the internet. The internet connection also allows to remotely control eralytics analyzers or to perform standard service activities.



ERAFLASH

Welcome to a New Era of Petroleum Testing

Upgrade your lab to the 21st century. Leverage the accuracy, speed and comfortable ease of use that are characteristic of eralytics instruments.

ERAVAP™

Vapor pressure testing at its best - The vapor pressure analyzer for virtually all types of fuel, from gasoline to LPG, that also handles crude oil, and takes tests in full compliance with the latest ASTM and EN ISO standards. With its unmatched precision and measuring stability ($r = 0.3 \text{ kPa}$, $R = 0.7 \text{ kPa}$) it is the preferred analyzer in laboratories across the world.



ERAFLASH™

The safe side of flashpoint testing - The patented PBT - Peltier Boost Technology™ makes the ERAFLASH the first and only flashpoint tester on the market to cover the wide temperature range of -25 to $420 \text{ }^\circ\text{C}$ in a single analyzer. Its small sample size and the continuously closed measuring chamber (ASTM D6450 & D7094) guarantee maximum safety and speed at minimum costs.

ERASPEC™

Spectral fuel analysis in seconds - The portable mid-FTIR spectrometer that is fully automated and multi-fuel capable. With its patented rugged design, it is perfect for fast gasoline, diesel & jet fuel analysis, delivering precise results for over 40 fuel parameters, like aromatics incl. benzene (ASTM D6277), oxygenates (ASTM D5845), FAME (EN14078), etc. and many fuel properties like Octane, Cetane, Density, Distillation, Vapor Pressure, etc.



ERACHECK™

CFC-free oil-in-water testing - The cost-cutting and eco-friendly analyzer with the patented QCL-IR technology allowing an extraction with the inexpensive and CFC-free solvent Cyclohexane. With its high speed and precision, it is the instrument of choice to detect even sub-ppm concentrations of total petroleum hydrocarbons (TPH) or total oil & grease (TOG) in water in full compliance with ASTM D7678.

eralytics instruments are available worldwide. An international network of over 50 authorized and well trained dealers is ready to answer your inquiries and to offer local support and service.

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