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eraflash

THE SAFE SIDE OF FLASH POINT TESTING

Standards
ASTM D6450, D7094, IP620

Fuel specifications
ASTM D396, D975, D2880, D3699, D7467

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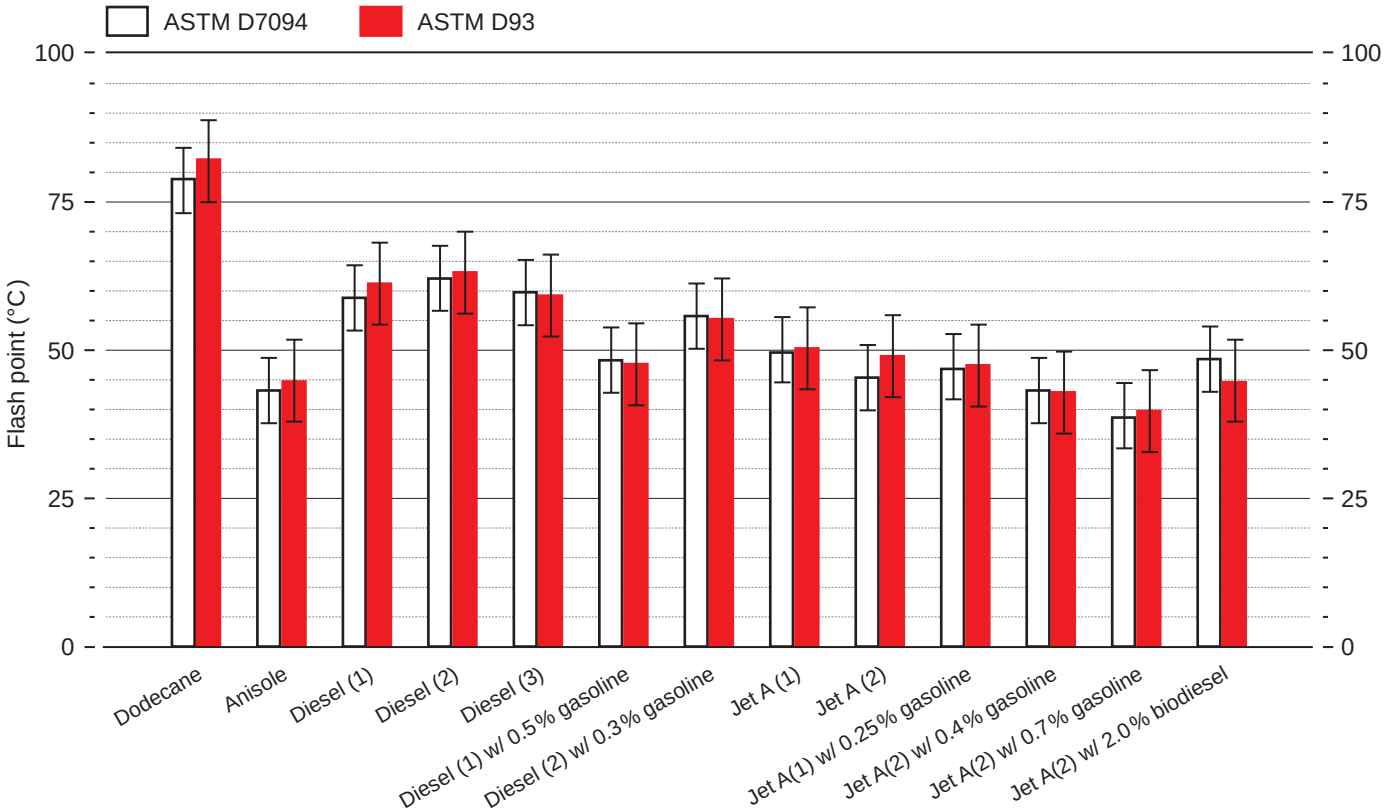
eraflash combines maximum safety with highest performance

ASTM D7094 accepted in many fuel specs due to no statistical bias to ASTM D93

An ASTM round robin test proved that no statistically significant bias exists between ASTM D93 and ASTM D7094 for fuels and contaminated fuels. The test report states a repeatability (r) of 4.1 °C for both methods and a reproducibility (R) of 5.5 °C for ASTM D7094 and 6.9 °C for ASTM D93. Consequently, ASTM D7049 is now accepted in the specifications of Fuel Oils (ASTM D396), Diesel Fuel Oils (ASTM D975), Gas Turbine Fuel Oils (ASTM D2880), Kerosene (ASTM D3699) and Diesel Fuel, Biodiesel Blend (ASTM D7467).



No Open Flame, No Glowing Wire, No Fire Hazard

The innovative Continuously Closed Cup Flash Point (CCCFP) methods ASTM D6450 and D7094 use only 1–2 mL of sample that is sealed in a closed chamber during the whole measurement process. An electrical arc inside the chamber ignites the sample and the lack of oxygen extinguishes the flame automatically. The device measures the corresponding pressure increase inside the chamber. An increase of ≥ 20 kPa is defined as the flash point.

High Speed

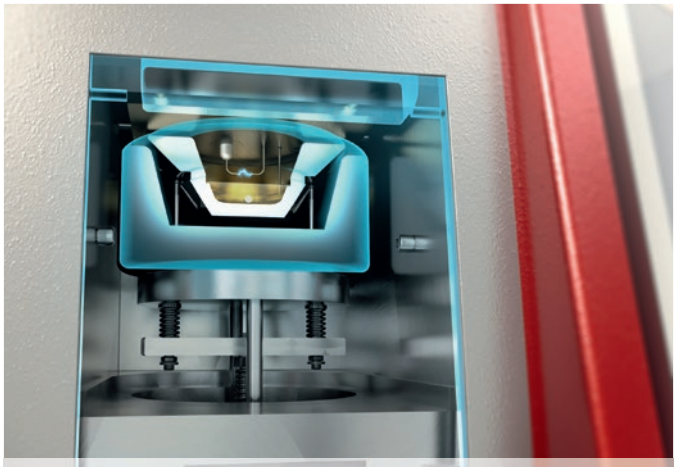
eralytics' patented PBT – Peltier Boost Technology™ allows previously unmatched heating and cooling rates. A sophisticated mechanism safeguards the Peltier elements from high temperatures during heat-up and allows their use during cooldown even at temperatures that would normally harm them. This cleverly designed temperature control system allows turnaround times that are significantly shorter than those offered by all other flash point instruments available on the market.

Unmatched Range

PBT also facilitates the widest measurement range on the market within a single device. The powerful Peltiers reach -25 °C and the safeguard mechanism efficiently shields them from temperatures up to 420 °C. The low temperature model **ERAFLASH LT** even reaches -40 °C oven temperature at significantly faster cooling rates than ever before.

Applications

ERAFLASH is the flash point testing solution for a wide variety of industries. It is used for specifying fuels, analyzing fresh and used lubricating oils, and bitumen testing. The small sample volume also renders it ideal for the more expensive samples such as flavors & fragrances, cosmetics, paints and varnishes or even hazardous waste.



Ignition inside the continuously closed chamber formed by the sample cup and the oven plate

Standard Model

EF10 ERAFLASH Flash Point Tester

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

High Temperature Extension

EF01-HTM High Temperature Module for EF10 & EFS10

Temperature range: up to 420 °C (788 °F)

Low Temperature Model

EF20 ERAFLASH LT Flash Point Tester

Temperature range: -40 °C–120 °C (-40 °F–248 °F)

Autosampler Model

EFS10 ERAFLASH S10 Flash Point Tester

Feature: 10-position autosampler

Technical Specifications of eraflash

Available Test Methods	ASTM D6450, D7094 & IP620
Pre-programmed Correlation Methods	Pensky Martens Closed Cup: ASTM D93; EN ISO 2719; DIN 51758; IP34; JIS K2265 TAG Closed Cup: ASTM D56 Abel Pensky Closed Cup: ISO 13736; IP170 Small Scale Closed Cup and Flash / No Flash methods: ASTM D3828; EN ISO 3679, EN ISO 3680
Fuel Specifications (ASTM D7094)	ASTM D396, D975, D2880, D3699, D7467
Speed Tests	Fast screening test programs for unknown samples
PBT – Peltier Boost Technology™	High speed heating and cooling: -25 °C – 420 °C (-13 °F – 788 °F) with a single analyzer
CPT – Contamination Prevention Technology™	Advanced electrode protection and self-cleaning ignition system to minimize cleaning and maintenance.
Combustion Graphics™	Display of combustion characteristics for contamination analysis
QC Mode	Built-in quality control mode including on-screen QC charts
QuickCal™	Temperature calibration cup for fast on-site calibration
Fuel Dilution Program	Automatic fuel dilution measurement for the analysis of used engine oils
Temperature Range	0 °C – 200 °C (32 °F – 390 °F) stand alone. No external cooling is required. Down to -25 °C (-13 °F) with water cooling / chiller Up to 420 °C (788 °F) with optional High Temperature Module (EF01-HTM) -40 °C – 120 °C (-40 °F – 248 °F) EF02 ERAFLASH LT model with external cooling
Temperature Stability	0.1 °C (0.2 °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; Wifi via USB dongle Direct LIMS connectivity via LAN and output to printer or PC Optional input by external keyboard, mouse and barcode reader
Remote Control	Remote service capability via Ethernet interface
PC Software	ERASOFT RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis
Result Database	Over 100 000 detailed test reports stored in internal memory
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, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available
Dimensions / Weight	24 x 35 x 34 (9.5 x 13.8 x 13.4 in) / 9.7 kg (21.4 lb)

Due to continuing product development, specifications are subject to change.
All **era**lytics products are manufactured under ISO 9001 regulations and are CE, ROHS and UL/CSA compliant. **www.eralytics.com/eraflash**

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