

## FTIR Spectroscopy

*Spectrum Two and Spectrum 3*

## Faster, Simpler Fuel Analysis with Spectrum Instruments

The fuel industry is governed by many international regulations. Blending biofuels with fossil fuels for use in diesel engines is now commonplace, necessitating regulation to assure biodiesel blend conformance. Strict testing procedures to measure biodiesel concentration are vital in the marine and aviation industries, where biodiesel is an undesirable fuel contaminant. Benzene levels must also be closely monitored in all types of fuels.

Failure to comply with regulations can lead to serious repercussions. A leader in IR analysis, PerkinElmer has harnessed over 85 years of IR experience to dramatically simplify fuel analysis. Our new IR spectrometer, Spectrum Two™ takes ease of use to new levels. With Spectrum Two, you can assure the quality and composition of fuel samples faster and more easily than ever before. Now, operators at any level can obtain industry-standard IR results in minutes.

### IR Ready to Go

A truly out of the box solution, Spectrum Two enables even the most inexperienced user to get up and running quickly to obtain the answer they need. Groundbreaking design features and a dedicated fuel industry analysis pack ensure anyone can be an IR expert.

- Unique software interface Spectrum Touch™ is designed to simplify user interaction.
- Complex analyses can be performed at the push of a single button via an intuitive touch screen interface.
- Clear step by step instructions enable inexperienced users to get up and running with ease.
- Every required sampling accessory and tools supplied, for maximum convenience.
- Fuel-specific reference guide provides swift quality and composition assurance.
- Optional self-training tool ensures staff training couldn't be simpler, freeing up more time and resources for production.

## Reliable Results, Everywhere

With Spectrum Two, you can achieve accurate, dependable answers in non-laboratory environments. Compact in size and robust, the instrument can be transported to any location. You get the result you need – when you need it.

- OpticsGuard™ technology provides a unique humidity shield, protecting Spectrum Two from detrimental environmental effects.
- Battery power facilitates transportation to non-traditional environments, simplifying analysis operations where mains power access is not available.
- Dynascan™ Interferometer design provides exceptional quality, while its non-critical bearing delivers unmatched longevity and reliability.
- AVI™ standardization ensures instruments are accurately calibrated and automatically stay tuned, assuring measurement consistency across multiple testing sites.

## Trouble-Free Measurements, Everyday

Fuel industry-specific Touch App™ software launches recognised analysis methods at the touch of a button: FAME EN 14078 for biodiesel quantification and ASTM D6277 for benzene contamination. Touch App guides users through every step of the analysis, providing detailed on-screen instructions. A wizard-style interface steers operators to the result, while instructions for sampling minimise error. The software is also multi-touch enabled for a faster, more intuitive user experience. Unlike dedicated analysers, Spectrum Two also has the performance capability and sampling flexibility of a FTIR and can be expanded to perform many other test methods.

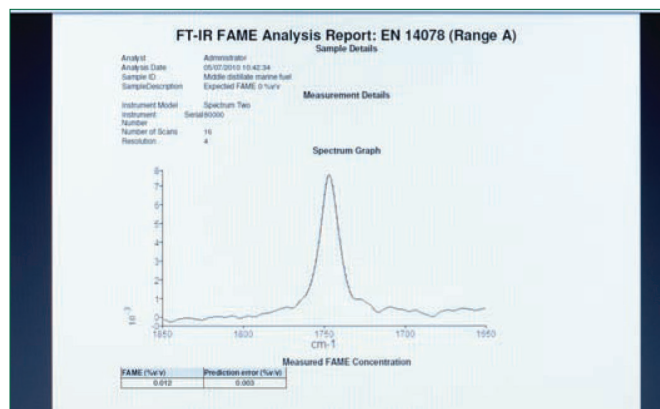


Figure 1. Regulated biodiesel measurement using application specific software.

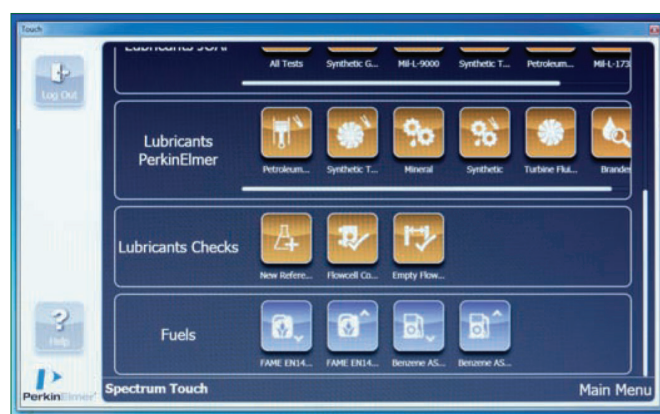


Figure 2. Touch App software provides intuitive operation.

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