

# SIMPLIFY YOUR POLYMER ANALYSIS



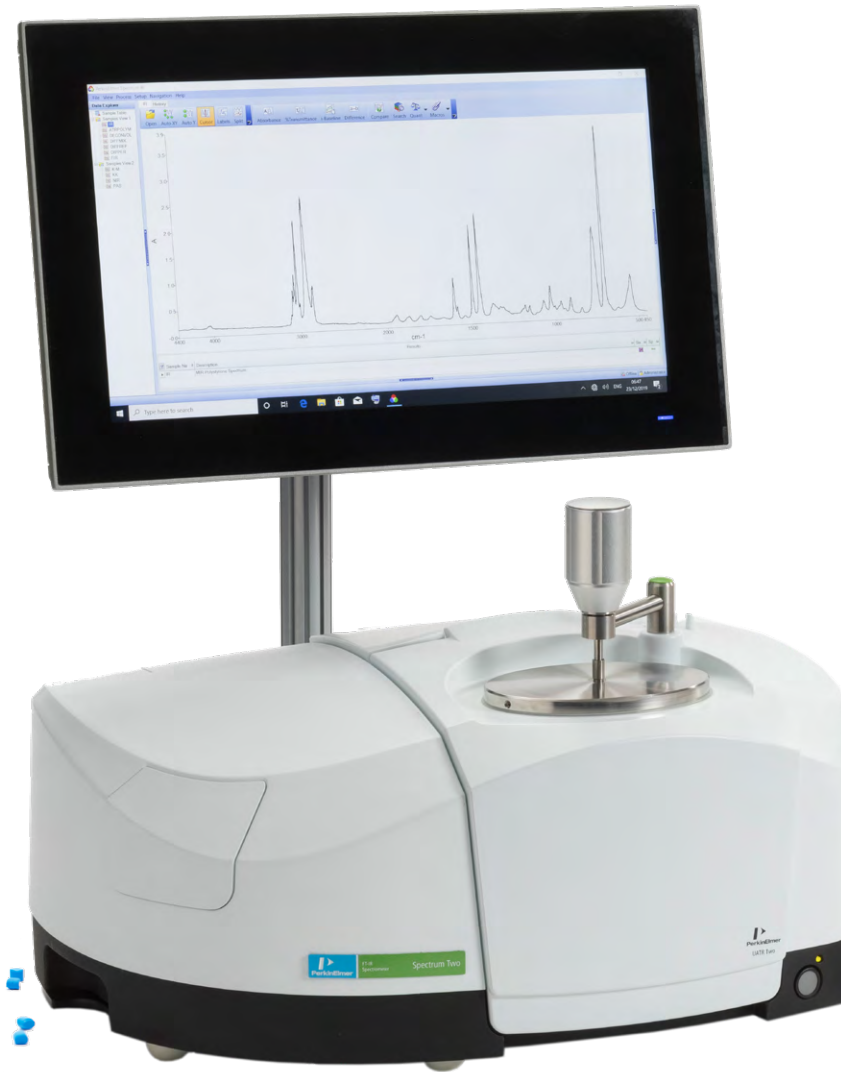
Polymer ID Analyzer

# Easy, Accurate, and Fast

Synthetic polymers are widely used today, with diverse applications in various industries such as food, automotive, and packaging. The quality of plastic products depends on the quality of the polymers or polymer blends used during manufacturing. Therefore, identity verification and quality testing of those materials during every manufacturing stage are necessary to ensure that only high-quality material is used.

There is a growing demand for easy, accurate, and rapid qualitative and quantitative polymer analysis to enable increased productivity and faster product release. Whether you are a polymer producer or a buyer in food packaging, construction, or the automotive industry – accurate verification of identity, quality, and composition of materials is critical to ensure finished products hold up to your standards.

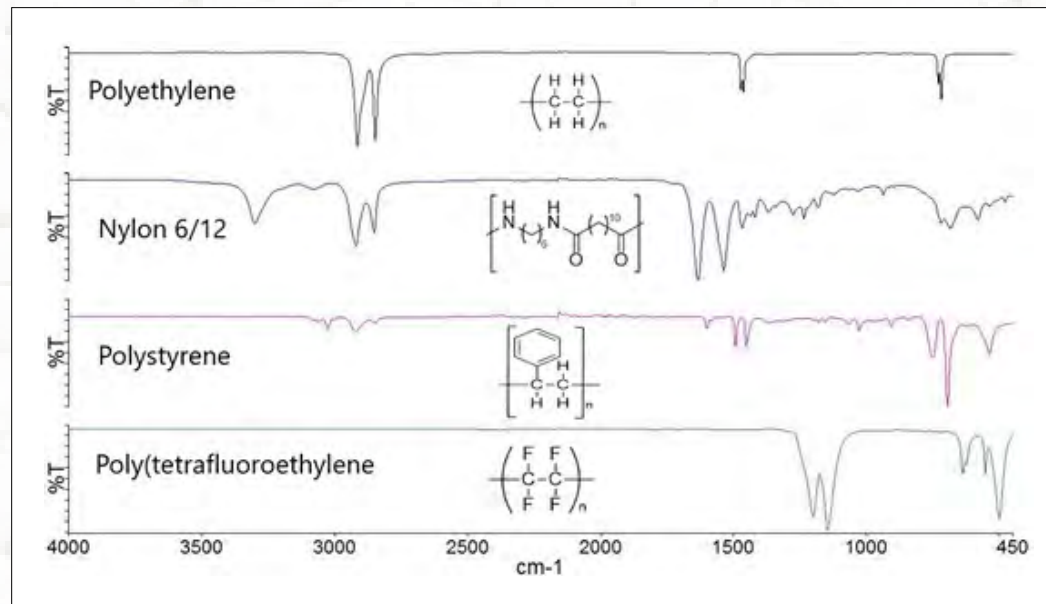
Introducing the **Polymer ID Analyzer**, a comprehensive Fourier transform infrared (FTIR) polymer analysis system that helps you quickly and accurately identify unknown polymer samples, determine the composition of polymer blends, and verify the quality of raw materials.



# A Brief Introduction to FTIR Spectroscopy

Fourier transform infrared (FTIR) spectroscopy is ideally suited to qualitative analysis of polymer raw materials and finished products. In addition, quantification of components in complex polymer mixtures and analysis of in-process samples is also possible. What's more, FTIR spectroscopy is reliable, fast, and cost-effective.

Infrared spectra are the result of molecular vibrations which occur due to the absorption of light in the infrared region. The positions of absorption bands in an IR spectrum provide information about the presence or absence of specific functional groups in a molecule. A spectrum as a whole constitutes a "fingerprint," which may be used to determine the identity of a sample. A difference between two spectra indicates the samples are made up of different components.



IR spectra of several common polymers; polyethylene, nylon 6/12, polystyrene, and poly(tetrafluoroethylene). These spectra were measured using the Polymer ID Analyzer with the universal attenuated total reflectance sampling accessory (UATR). The clear differences between the spectra allow for discrimination between materials by visual inspection.

# Easy to Operate Right in Your Lab

Our **Polymer ID Analyzer** is a truly dedicated polymer analysis system for identity verification to ensure quality, optimize processes, and maximize productivity and profits through the effortless generation of reliable, high-quality FTIR data.

The plug-and-play polymer analysis system, with intuitive touch software, enables anyone to run samples in a few minutes and identify if the correct polymer will be used during manufacturing. This accurate verification of identity, quality, and composition of materials is critical to ensure finished products hold up to your standards.

With a specialized polymer library and tools to accelerate analysis for a wide range of polymers, anyone – even those with minimal training – can easily operate the instrument

## Our Polymer ID Analyzer helps you:

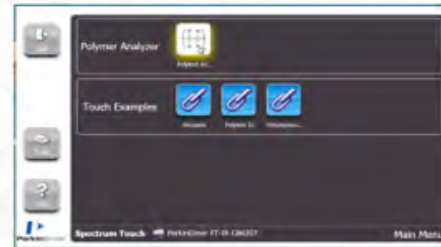
- Confidently analyze a wide range of polymers and complex blends
- Maximize productivity with simple and rapid verification
- Ensure quality control of raw materials, in-process samples, and finished products
- Reduce operational and training costs
- Expand revenue by analyzing at the location of your sample – don't lose time and money getting samples to the lab
- Save time and maximize revenue by analyzing at the location of your sample



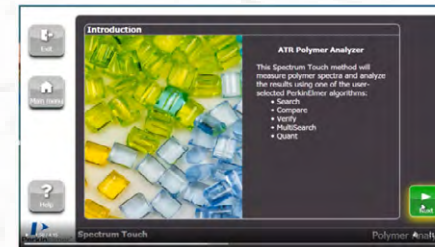
# Polymer Identification Workflow – Just That Simple



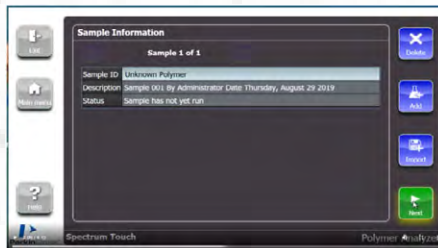
1 User selection



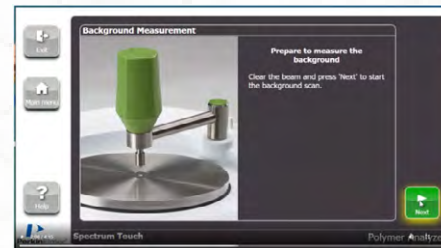
2 Macro/Method selection



3 Introduction page



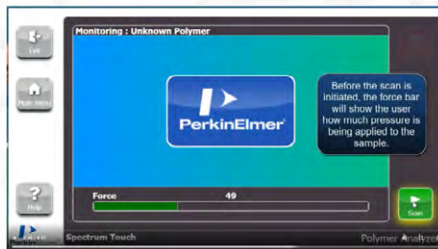
4 Sample information



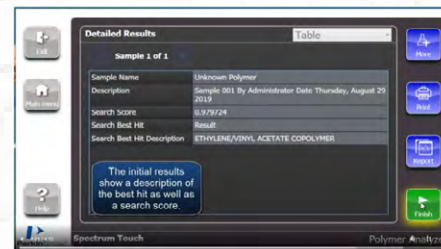
5 Background measurement



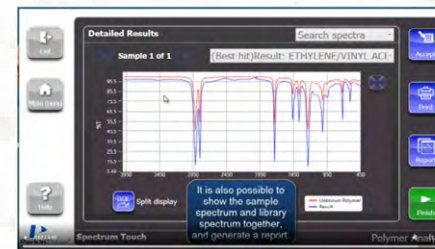
6 Sample preparation



7 Sample measurement



8 Results

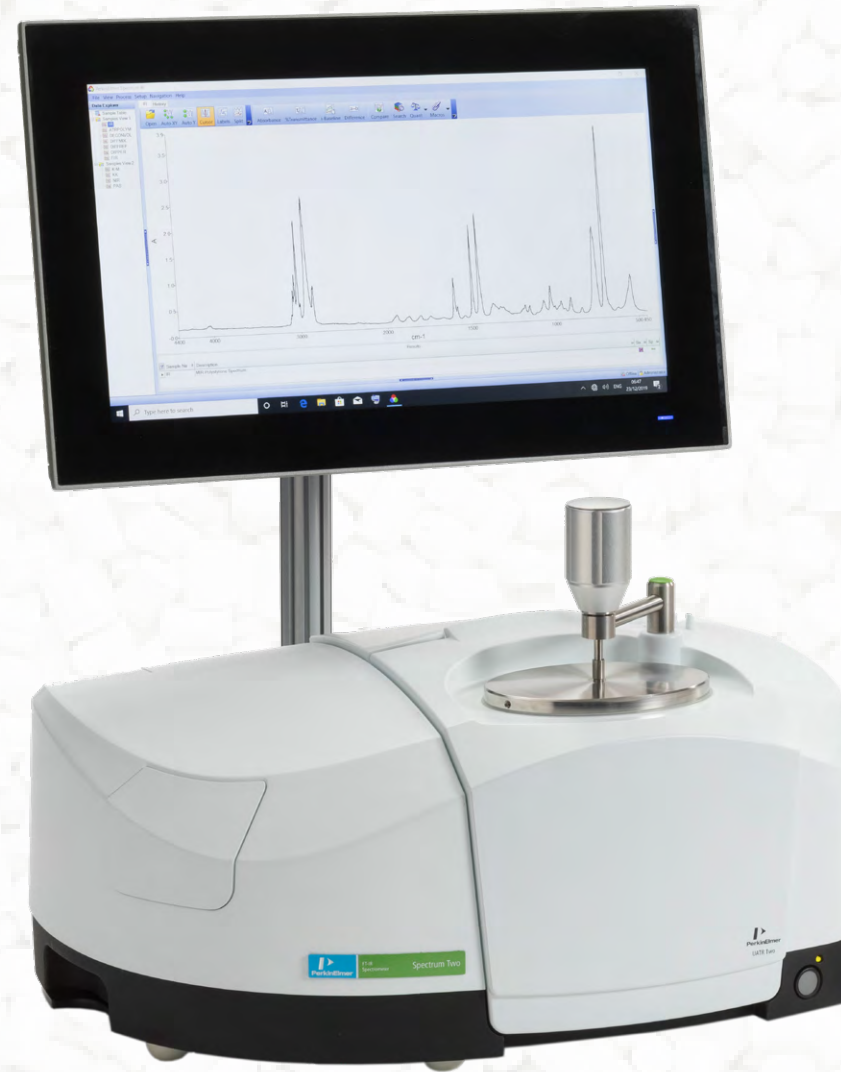
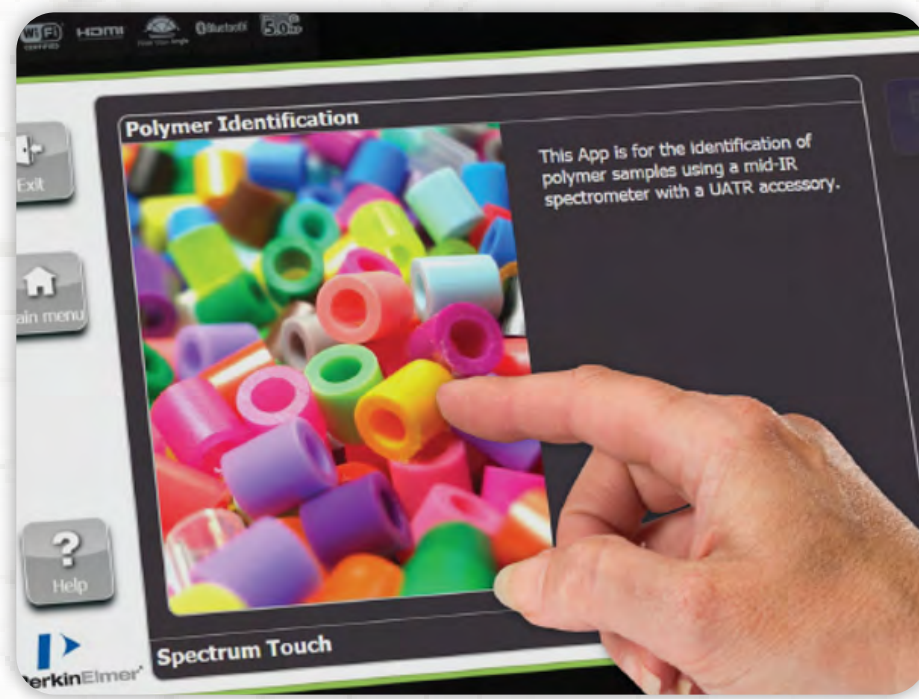


9 See spectra

# Results In Just a Few Touches

Simplify your polymer analysis workflow with easy and efficient data collection, processing, and generation of results. It helps reduce potential errors from your analysis, methods, and operators, enabling you to gain meaningful insights to ensure quality and optimize processes.

Create routine operating protocols and lower the likelihood of operator error with our powerful **Spectrum™ IR** software.



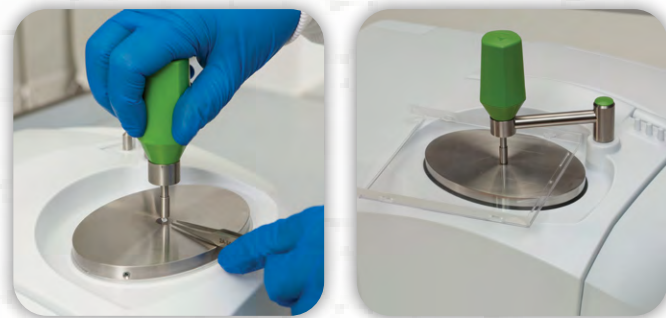
# IR Ready to Go

Over 80 years of PerkinElmer spectroscopy know-how have been distilled into one instrument to assure the quality of your materials. And you can ensure fast results. For confidence in your IR results, *every day*, choose **Spectrum Two™**.

## The heart of the Polymer ID Analyzer

Our Spectrum Two+ breaks new ground in operational simplicity, combining superb performance with low maintenance design. As a laboratory-performance yet robust and transportable FTIR system platform, the Spectrum Two enables simple, reliable FTIR solutions for product quality testing. A range of plug-and-play sampling accessories and application packages ensure the best solution for a range of applications.

Built to the highest ISO-9001 manufacturing standards, our Spectrum Two delivers outstanding performance and reliability, and provides high-performance and dependable IR measurement solutions – no matter what your IR requirement.



For more information visit [www.perkinelmer.com](http://www.perkinelmer.com)

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