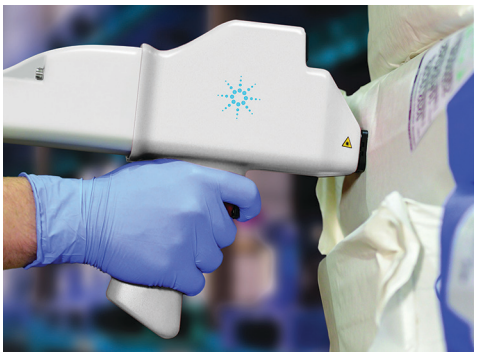
Agilent Raman Solutions for Pharmaceutical QC

Lower your costs and streamline your workflows in raw material identification, content uniformity testing, and polymorph analysis



Agilent RapID Raman through-barrier raw material identity verification system

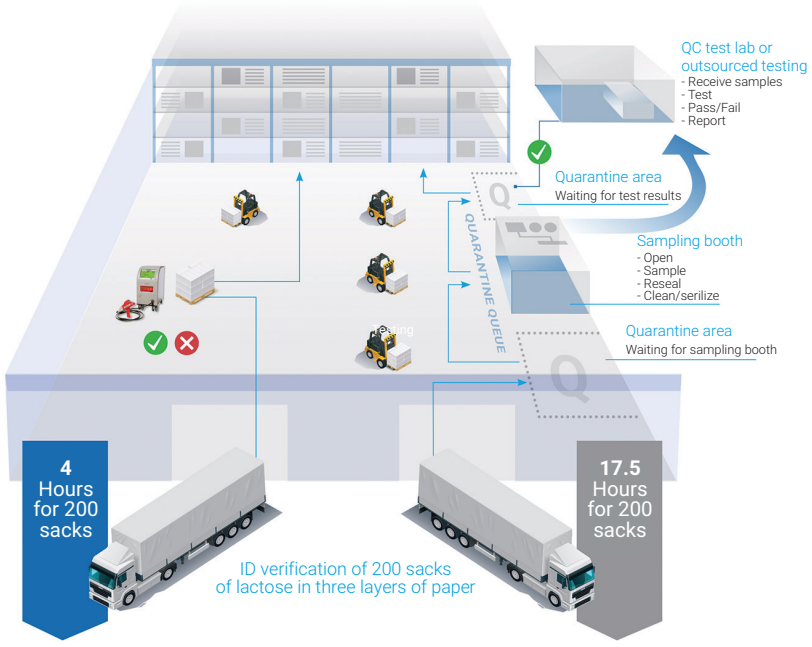
Agilent RapID system

The Agilent RapID Raman through-barrier raw material identity verification system is a unique tool for high-throughput ID testing of incoming raw materials through unopened containers. Raman spectroscopy is used to identify incoming goods in pharmaceutical manufacturing, but requires thin transparent containers to work. The RapID system works through opaque packaging, such as paper sacks and thick plastic bottles, with a single 5–30-second measurement.

Testing in a warehouse costs more than just the test itself. A recent study showed that more than a day can be saved per incoming batch by avoiding sampling, labeling, and movement logistics. By avoiding sampling booths, testing can be done on the warehouse floor, avoiding contamination and exposure risks and making 100% testing feasible.

The RapID system identifies substances through glass, multilayer paper sacks, white and colored plastic, supersacks, and other containers. It is compatible with most active pharmaceutical ingredients and common excipients.

RapID is usually used in the warehouse by QC or warehouse staff. With a simple workflow, bar-code reader, and built-in networking support, routine testing is fast and efficient. The RapID system is 21 CFR Part 11 compliant.



Find out more:

www.agilent.com/chem/rapid

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Agilent TRS100 Raman quantitative pharmaceutical analysis system

Agilent TRS100 system

The Agilent TRS100 Raman quantitative pharmaceutical analysis system is a transmission Raman spectroscopy (TRS) instrument for QC analysis of oral solid dosage (OSD) samples, powders, and more.

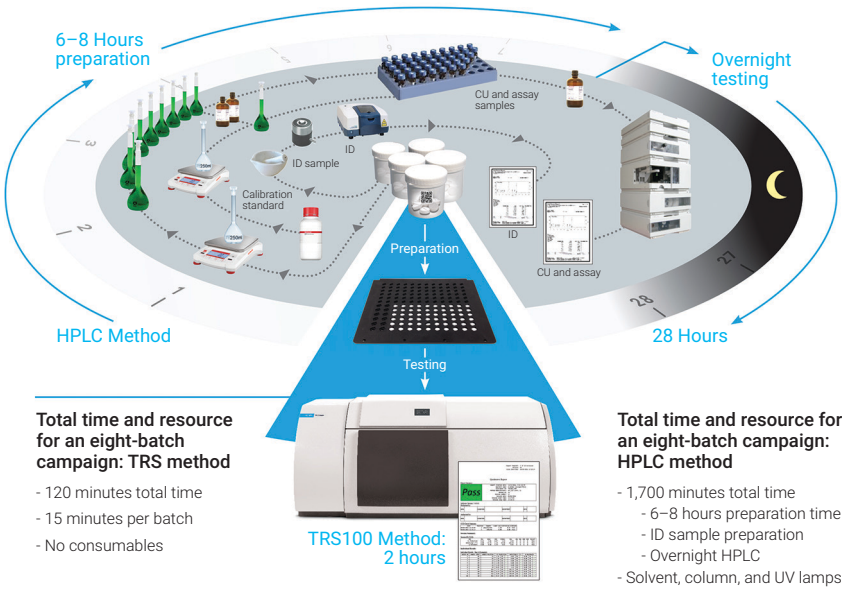
Using the TRS100, content uniformity (CU), assay, and ID of intact tablets and capsules can be performed in 10 seconds or less. Sample preparation, consumables, solvents, and highly skilled technicians are not required.

The ability to quantify different polymorphs and solid-state forms makes the TRS100 system a quick and sensitive adjunct to X-ray diffraction techniques. The TRS100 system works with powders or intact OSD samples, and can be used for nondestructive stability testing.

CU, assay, and ID: Tablets and capsules are loaded onto a tray of up to 300 tablets, which is analyzed automatically. The QC cost-savings per testing campaign are thousands of dollars compared to wet chemistry. Every batch takes just 10–15 minutes to test and a typical campaign takes 1–2 hours, without the setup or changeover time of wet techniques.

Formulation development: High sensitivity to active pharmaceutical ingredients or solid-state forms, down to 0.1–1 % w/w levels, with very high chemical specificity makes the TRS100 system ideal for development and troubleshooting.

Applicability: The TRS100 is designed for pharma and used in QC laboratories, manufacturing, and pharma R&D. Regulatory release testing accepted and 21 CFR part 11 compliant, the TRS100 is ideal for use in production, including real-time release testing, process monitoring, and large n testing.



Total time and resource for an eight-batch campaign: TRS method

- 120 minutes total time
- 15 minutes per batch
- No consumables

Total time and resource for an eight-batch campaign: HPLC method

- 1,700 minutes total time
  - 6–8 hours preparation time
  - ID sample preparation
  - Overnight HPLC
- Solvent, column, and UV lamps
- 96 Volumetric flasks

Find out more:

www.agilent.com/chem/trs100

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