

6 Tiers or Types of Autosampler Vials Explained - HPLC Primer

Date: 2-August-2014 Last Updated: 13-DECEMBER-2025

To meet the diverse needs of laboratories and chromatographers, MICROSOLV has developed a tiered portfolio of autosampler vials and closures—each designed with specific performance, quality, and budget considerations in mind.

MICROSOLV Brand™ Vials

Introduced: 2004

Glass Type: N51A Type-1 Borosilicate

These pharmaceutical-grade vials set the original standard for autosampler vial quality. Manufactured with in-line computerized vision systems, they ensure exceptional fit, form, and cleanliness. Widely adopted by leading autosampler manufacturers, they remain a trusted choice for high-precision applications.

BASIK™ Brand Vials

Purpose: Cost-Effective, Reliable Performance

Glass Type: Type-1, 33 Expansion Borosilicate

Developed for budget-conscious labs, BASIK™ vials offer chromatography-grade quality at a lower cost. They are manufactured with the same automated vision systems to ensure compatibility with autosamplers, but with less stringent QC than the MICROSOLV brand and with a different glass type.. Ideal for routine analyses where ultra-high purity is not required.

AQ™ Brand Vials

Introduced: 2007

Glass Type: Type-1, 33 Expansion Borosilicate

As UHPLC and MS technologies advanced, so did the need for cleaner, more consistent vials. AQ™ vials were developed to meet these demands with:

- Tight manufacturing SOPs
- Elimination of greases, surfactants, and other contaminants
- Advanced packaging that prevents outgassing

These vials are certified and quality-assured for LC-MS, GC-MS, and UHPLC applications, offering superior cleanliness and reliability.

RSA™ Brand

Purpose: Minimize Surface Activity

Even high-quality glass can introduce issues such as adsorption, chelation, and pH shifts—especially problematic for low-abundance analytes and labile compounds. RSA™ (Reduced Surface Activity) vials eliminate the variable silanol layer found in all conventional glass vials, making them ideal for:

- LC-MS/MS and GC-MS
- Basic and pH-sensitive compounds
- Low-dose pharmaceutical formulations

RSA-Pro X™ Vials

The Pinnacle of Vial Technology

Designed for the most demanding applications, RSA-Pro X™ vials combine all the benefits of RSA™ glass with enhanced surface deactivation. They are the best choice for:

- Biomarker discovery
- Forensic and environmental analysis
- Sticky proteins and peptides
- Long-term hydrophobic stability

These vials are manufactured without petroleum lubricants and are robotically packaged in ISO-certified, Class 100,000 cleanrooms—ensuring zero human contact and unmatched purity.

One Source, All Tiers

MICROSOLV and its partners have invested heavily in R&D and manufacturing to provide a complete solution for every chromatography need. Whether you're running routine HPLC or cutting-edge LC-MS/MS, our vial portfolio offers the right balance of performance, purity, and price.

[Click here to See All Tiers and Options](#)

AUTOSAMPLER
VIALS AND CAPS

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