

Black Spots in Amber Autosampler Vials – Tech Information

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When amber autosampler vials are inspected prior to use, some users occasionally notice small black or dark spots embedded within the glass. While these markings may appear concerning at first glance, they are a normal artifact of the glass-forming process and do not indicate contamination or manufacturing defects.

Origin of the Black Spots

During amber glass formation, small particles of amber glass material and tiny pockets of trapped air can become embedded within the vial wall. These natural by-products of the high-temperature molding process create dark specks that remain visible once the vial cools.

These spots are inherent to the way amber glass is produced and are not related to environmental dirt, residue, or foreign matter.

Not a Source of Contamination

Extensive quality-control testing has demonstrated that these black inclusions do **not** introduce chemical contamination or affect sample purity.

Two independent QC evaluations support this:

- HPLC testing confirms no interference, leaching, or anomalous chromatographic behavior.
- Expert microscopy analysis verifies that the spots are part of the glass matrix itself, not external contaminants.

These findings affirm that the presence of such inclusions does not compromise vial functionality or analytical performance.

Impact on Method Performance

Because the spots are internal to the glass structure and chemically inert, they do not influence:

- Solvent compatibility
- Sample adsorption or recovery
- Optical detection in LC or GC workflows
- Mechanical strength or safety of the vial

Users can treat these vials as fully suitable for routine analytical applications.

[Autosampler Vials, Caps & Inserts Ordering Information](#)

AUTOSAMPLER

VIALS AND CAPS

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