

## Autoclaving Glass Inserts with Plastic Spring is Not Recommended - Tech Information

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Autoclaving glass or plastic inserts that have attached plastic springs or “plastic feet” is *not* recommended for laboratory use. Although the glass portion of these inserts can tolerate extremely high temperatures—up to approximately 1,000 °F—the same is not true for the polyethylene components.

During an autoclave cycle, the combination of high heat, moisture, and pressure will cause the polyethylene springs to deform, potentially crack, and ultimately lose their functional elasticity. This deformation compromises both the structural integrity and consistent performance of the insert, which can lead to unreliable autosampler behavior, sample loss, or improper vial seating.

Because the glass itself remains unaffected while the plastic components fail, autoclaving these inserts results in mixed-material degradation, making the insert unusable even if the glass appears intact. For this reason, the practice is not supported for any application where these components must retain their original mechanical properties.

### Recommended Sterilization Method

For laboratories requiring sterility, an effective alternative is ethylene oxide (EtO) gas sterilization, which does *not* expose the plastic springs to damaging levels of heat. This method preserves both the functionality and longevity of the inserts while achieving the desired level of sterilization.



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