

Care of HF Resistant Spray Chamber on iCAP 6000 / 7000 Series

The PTFE and PFA spray chambers have an internal surface that is specially treated to ensure that it wets evenly and provides consistent drainage. The treatment turns the surface a characteristic brown color. It should be noted that the treatment actually changes the molecular structure of the PTFE and PFA. It is not a coating and is clean, free of contaminants and completely inert.

While the surface treatment is long lasting, it may degrade after prolonged use. The lifetime of the treated surface depends on the type of samples used and could range from several months to several years. To ensure that you get the best performance from your PTFE and PFA spray chambers, we recommend the following:

Don'ts

- Do not use H₂O₂ for cleaning the spray chambers as this will accelerate the degradation of the surface.
- Do not make physical contact with the chamber interior surface with any instrument, including your hands or a brush. The internal surface of each PTFE and PFA spray chamber has been specially treated to ensure proper drainage. Touching, scratching or damaging the surface in anyway may result in poor performance.
- Do not be concerned if the brown color fades over time. This is normal and does not necessarily lead to degradation in performance.

Maintenance

- If you notice a degradation in performance (such as poorer precision or detection limits), then clean the spray chamber with Fluka 'RBS-25'. In the first instance, aspirating a 2.5% Fluka solution (40x dilution) for 15 minutes will probably be sufficient to recover the performance. However, if this is not effective, the spray chamber should be soaked overnight in a 25% Fluka solution (4x dilution). Fluka solution can be ordered through the following link:
<http://www.geicp.com/cgi-bin/site/wrapper.pl?c1=Showpart&partno=FLUKA25>
- Eventually the surface may degrade to the point where it does not recover after soaking in Fluka. At this point the spray chamber needs to be returned to Glass Expansion where the surface can be re-treated for a nominal cost.

Unity Lab Services

Please contact Glass Expansion directly to schedule your spray chamber to be serviced. Glass Expansion can be contacted at:

geusa@geicp.com or 508-563-1800

Note: when emailing Glass expansion, please include "Spray Chamber Re-treatment" in the subject line and in the body of the email your company and contact information.

It is a good idea to have a spare HF resistant spray chamber onsite as it takes 2-3 weeks for a spray chamber to be re-treated and sent back to you.