

# UltraShield UHPLC Precolumn Filter

cat.# 24995, 24996, 24997, 25809, 25810, 25811

UltraShield precolumn filters are designed to be an affordable UHPLC precolumn filter with a total volume of less than 1  $\mu\text{L}$ . These filters have minimal effect on efficiency with all UHPLC columns and systems and, when properly used, should not impact separations. In order to ensure that chromatographic performance is not affected, it is strongly recommended that the filter not be removed from the chromatography column until it will be replaced. Repeated installation of the same UltraShield filter in multiple columns and instruments may lead to diminished performance.

## Installation Instructions:

When installing an UltraShield filter, it is important that all connections be properly seated in order to eliminate dead volume and ensure a proper seal. To install your filter correctly:

1. Place the PEEK ferrule over the tube end of the UltraShield filter, and install it in the inlet of the UHPLC column. Connect the filter in the same manner you would install the solvent line from your liquid chromatograph.
2. Finger-tighten the UltraShield filter in the column inlet.
3. Using two open-ended wrenches ( $\frac{5}{16}$ " for the filter and the appropriate size for the column-end fitting), tighten the UltraShield filter an additional  $\frac{1}{4}$  turn.
4. Install the solvent line into the UltraShield filter in a similar fashion. We recommend using a new nut and ferrule on the instrument solvent line to ensure a zero-volume connection.
5. After pressurizing the system, inspect all connections for leakage, and tighten appropriate fittings as necessary.



**Do not over-tighten UltraShield filters!** UltraShield filters should be tightened only to the point of ensuring a leak-free connection; no more than  $\frac{1}{4}$  turn past finger-tight. Over-tightening can cause deformation of both the PEEK ferrule and the connecting tubing, which may result in damage to the column and/or filter.

**Questions about this or any other Restek product? Contact us or your local Restek representative ([www.restek.com/contact-us](http://www.restek.com/contact-us)).**

Restek patents and trademarks are the property of Restek Corporation. (See [www.restek.com/Patents-Trademarks](http://www.restek.com/Patents-Trademarks) for full list.) Other trademarks in Restek literature or on its website are the property of their respective owners. Restek registered trademarks are registered in the U.S. and may also be registered in other countries.

© 2019 Restek Corporation. All rights reserved. Printed in the U.S.A.

[www.restek.com](http://www.restek.com)

#730-70-003 Rev. date: 09/19



**RESTEK**  
Pure Chromatography