



Restek LC

Improve Acrylamide Analysis

with an Allure Acrylamide LC Column and Certified Reference Standards

- Faster analysis times than typical methods.
- Longer column lifetimes than porous graphitized carbon (PGC) columns.
- Meets or exceeds EN 16618:2015 and U.S. FDA requirements.

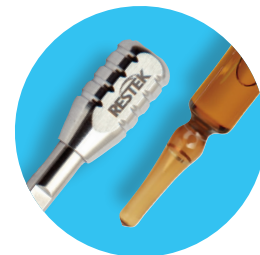


RESTEK

Pure Chromatography

www.restek.com

A Better Solution for Acrylamide Analysis

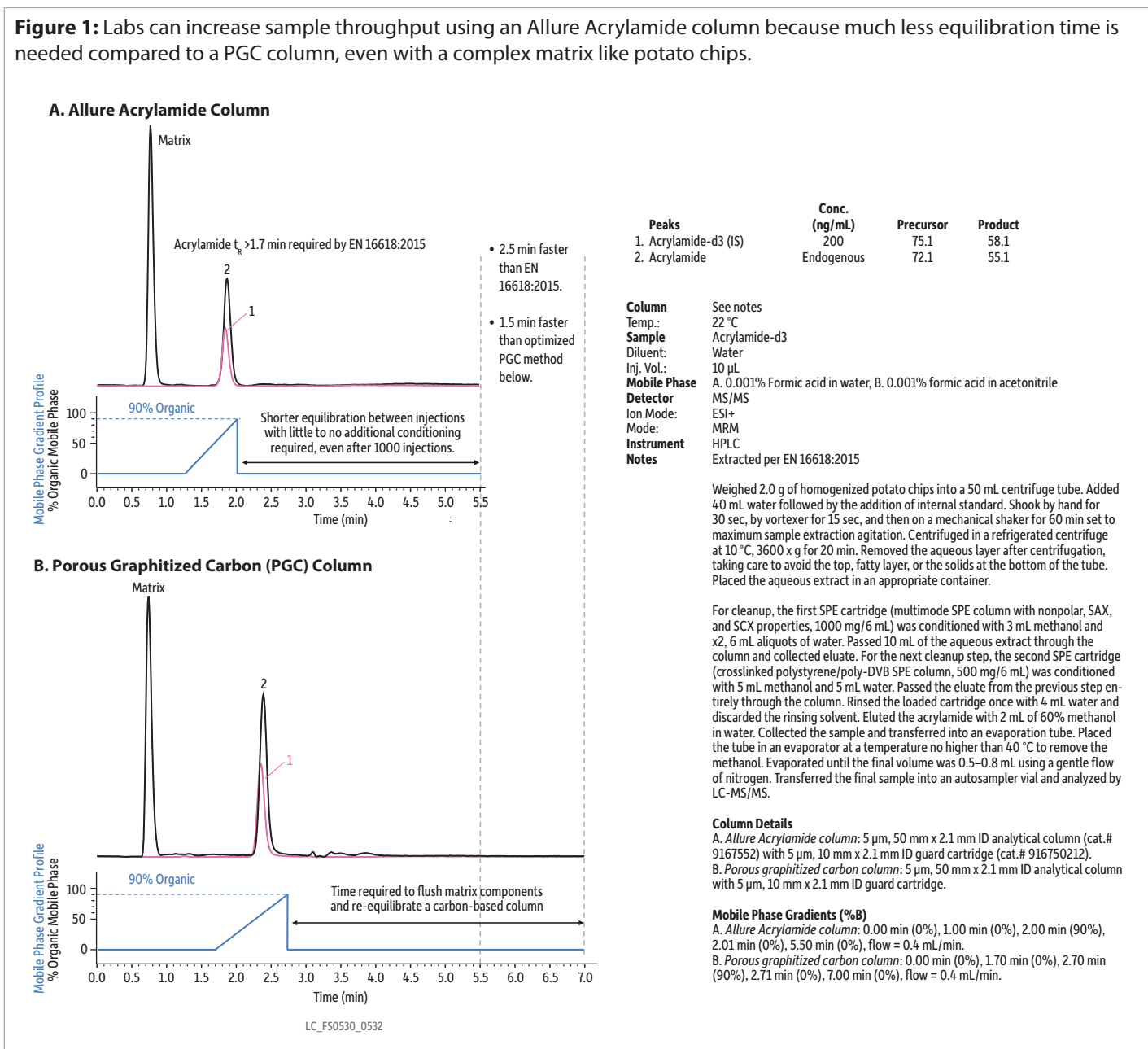


The porous graphitized carbon (PGC) columns typically used for acrylamide analysis by method EN 16618:2015 provide adequate retention of acrylamide and sufficient separation from matrix components, but they are limited by long run times and short column lifetimes. Switching to an Allure Acrylamide column is a better alternative: an Allure Acrylamide column used with a deuterated internal standard provides faster total analysis times and meets system suitability requirements longer, allowing labs to significantly increase sample throughput.

Shorter Analysis Times

Because matrix compounds elute quickly from an Allure Acrylamide column, it is able to equilibrate and be ready for the next injection faster than a PGC column. As shown in Figure 1, an Allure Acrylamide column meets the EN method 1.7-minute retention time requirement with good separation from matrix components and a much shorter equilibration time. A per analysis savings of 2.5 minutes (compared to EN 16618:2015) or 1.5 minutes (compared to the optimized PGC column conditions shown below) allows more samples to be analyzed per shift, significantly increasing lab output.

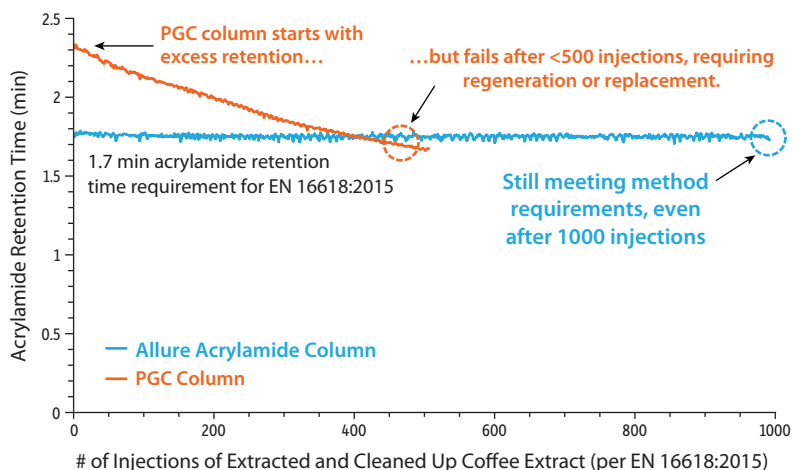
Figure 1: Labs can increase sample throughput using an Allure Acrylamide column because much less equilibration time is needed compared to a PGC column, even with a complex matrix like potato chips.



Longer Column Lifetimes

As labs using PGC columns approach the 1.7-minute acrylamide retention time system suitability threshold, they face the choice of either replacing the column or conducting a lengthy regeneration procedure in the hope of restoring performance. Both are time-consuming and costly propositions that halt sample throughput. Superior retention time stability can be achieved by switching to an Allure Acrylamide column, as illustrated in Figure 2. The PGC column loses retention almost immediately and ultimately fails the 1.7-minute requirement after 475 injections. In contrast, the Allure Acrylamide column performance remains steady even after 1000 injections.

Figure 2: The Allure Acrylamide column still meets EN 16618:2015 system suitability requirements even after 1000 injections—over twice as many passing injections than a typical PGC column.



Consistent Performance Injection to Injection and Column to Column

Developed to withstand 100% aqueous mobile phases and elute coextracted matrix components rather than strongly retaining them, Restek Allure Acrylamide guard and analytical columns deliver the same robust performance injection to injection and column to column (Figures 3 and 4). Our stringent manufacturing procedures and rigorous quality testing ensure that when it does come time to replace your Allure Acrylamide column, you'll get the same chromatographic performance with the new column that you relied on with the old one.

Figure 3: Even after 1000 injections of coffee extract—without any system maintenance or guard column replacement—the Allure Acrylamide column performance remains unchanged.

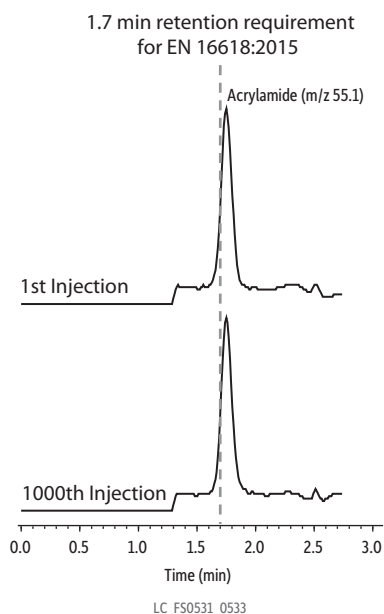
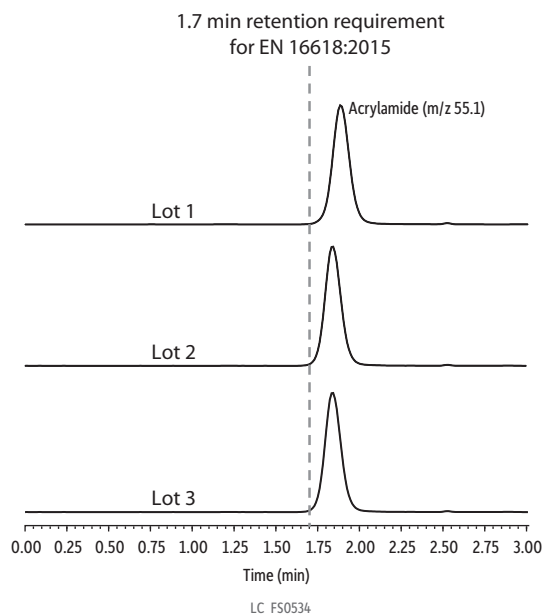


Figure 4: Rugged reversed-phase Allure Acrylamide LC columns deliver reproducible results column to column and lot to lot.



For conditions, visit www.restek.com and enter FFAR3126-UNV in the search.

Improve Acrylamide Analysis with a Long-Lasting LC Column and a Cost-Effective Internal Standard

Allure Acrylamide LC Column

Chromatographic Properties

The Allure Acrylamide LC column provides targeted acrylamide retention as well as improved isolation from matrix interferences to aid in low-level detection and quantitation in various food matrices, including difficult samples like potato chips/crisps or coffee. The proprietary ligand and bonding process produce a stable, reproducible retention time with excellent peak shape and lifetime compared to carbon-based stationary phases. Its unique ligand with an embedded polar group is compatible with 100% aqueous mobile phases. Suitable for EN 16618:2015 and U.S. FDA draft procedures.

Description	cat.#
5 µm Columns	
50 mm, 2.1 mm ID	9167552



Column Characteristics:

Particle: 5 µm, spherical
Pore Size: 60 Å
Carbon Load: proprietary
End-cap: no
Surface Area: 450 m ² /g
pH Range: 2.5 to 8
Maximum Temperature: 80 °C

Allure Guard Cartridges

Description	Particle Size	Size	qty.	cat.#
Allure Acrylamide Guard Cartridge	5 µm	10 x 2.1 mm	3-pk.	916750212



Acrylamide

Acrylamide (79-06-1)

1,000 µg/mL in methanol, 1 mL/ampul	cat.# 30494 (ea.)
-------------------------------------	-------------------

Acrylamide-d3

Deuterium-labeled acrylamide is an excellent and cost-effective isotopically labeled internal standard choice for the analysis of acrylamide in food or environmental samples.

Acrylamide-d3 (122775-19-3)

500 µg/mL in acetonitrile, 5 mL/ampul	cat.# 30153 (ea.)
---------------------------------------	-------------------

Certified reference materials (CRMs) manufactured and QC-tested in ISO-accredited labs satisfy your ISO requirements.



RESTEK
Pure Chromatography

Questions? Contact us or your local Restek representative (www.restek.com/contact-us).

Restek patents and trademarks are the property of Restek Corporation. (See 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. To unsubscribe from future Restek communications or to update your preferences, visit www.restek.com/subscribe To update your status with an authorized Restek distributor or instrument channel partner, please contact them directly.

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

www.restek.com



Lit. Cat.# FFSS3127-UNV