

Agilent PLgel 10 μ m MIXED-B Columns

Routine Analysis of Oil Extended Butadiene Rubber

Technical Overview

Introduction

PLgel MIXED-B columns are ideal for routine analyses in tetrahydrofuran, as shown in the separation of butadiene rubber.



Agilent Technologies

To ensure dissolution, sample of butadiene rubber were warmed to 50 °C and gently stirred for up to three hours. Filtering using 0.5 µm filters is recommended to remove any 'gel fractions' present. The PLgel 10 µm MIXED-B packing permits resolution of both the polymer and oil peaks.

PLgel 10 µm MIXED-B columns are designed for high MW polymer analysis and demanding eluent conditions. The PLgel 10 µm MIXED-B spans a wide range of molecular weights, up to 10 million, with a linear calibration curve. It is particularly useful for molecular weight distributions where slightly higher than average MWs are encountered. The 10 µm particle size provides good resolution with relatively low pressures for enhanced lifetimes in demanding conditions.

Conditions

Columns:	2 x PLgel 10 µm MIXED-B, 300 x 7.5 mm (part number PL1110-6100)
Eluent:	THF
Flow Rate:	1.0 mL/min
Loading:	0.2%, 100 µL
Detection:	RI

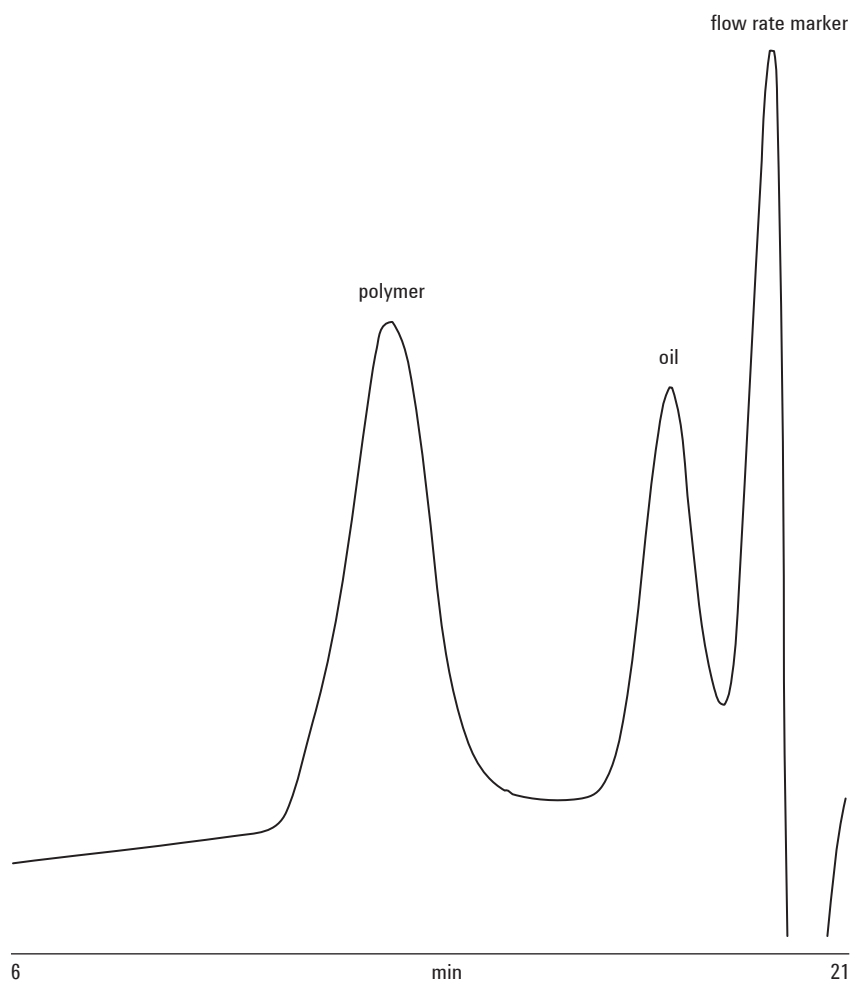


Figure 1. Analysis of oil extended butadiene rubber using PLgel 10 µm MIXED-B columns

www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2010

Published in UK, September 22, 2010

SI-1784



Agilent Technologies