# Successful Polyetherimide Analysis
## Agilent PLgel 5 µm MIXED-D Columns

Technical Overview

### Introduction

Polyetherimide elutes well within the recooling range of PLgel MIXED-D columns. The PLgel 5 µm MIXED-D column is specifically designed for the analysis of polymers, paints and resin systems where material above 400,000 MW is unlikely to be present. High pore volume, concentrated in this operating range, combined with the 5 µm efficiency, provides excellent resolution for low MW polymers and oligomers. Two, or even three, PLgel 5 µm MIXED-D columns are the perfect replacement for the popular $10^4$/500 Å or $10^4$/$10^3$/500 Å/100 Å column combinations.

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Figure 1 shows the separation of a polyetherimide. The sample was dissolved by heating to approximately 70 °C; this temperature was also used for the analysis due to the high viscosity of the eluent.

| | |
|---|---|
| Column: | 2 x PLgel 5 µm MIXED-D, 300 x 7.5 mm (part number PL1110-6504) |
| Eluent: | DMF + 0.1% LiBr |
| Flow Rate: | 1.0 mL/min |
| Detection: | RI |

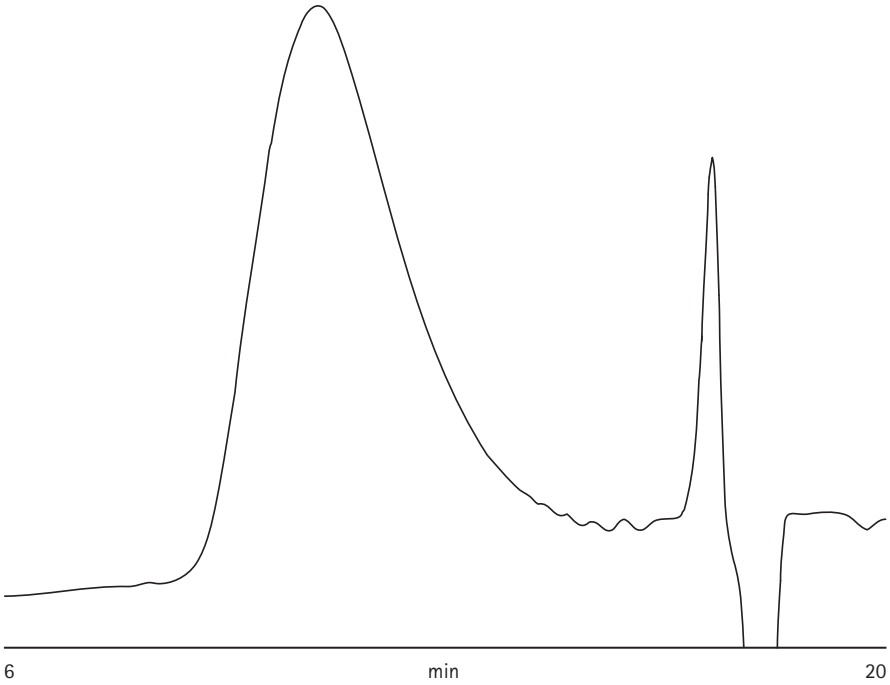


***Figure 1. Separation of a polyetherimide using a PLgel MIXED-D column set***

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