

# Reduced Viscosity Analysis of Polyurethane

## Application Note

Materials Testing and Research, Polymers

### Author

Graham Cleaver  
Agilent Technologies, Inc.

### Introduction

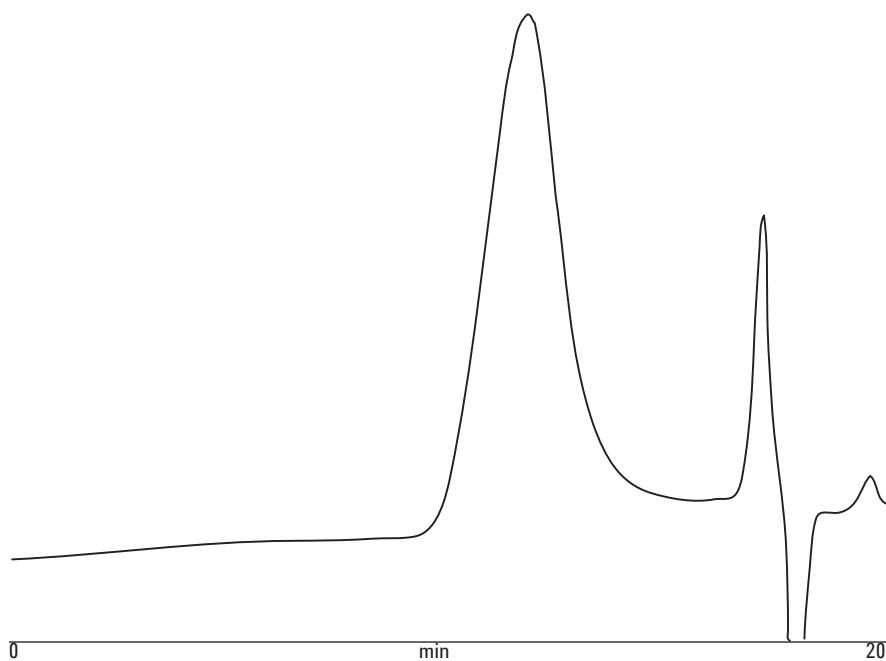
Polyurethanes are soluble in several medium to high polarity solvents. In DMF, the temperature is increased to reduce eluent viscosity so reducing operating pressure. Agilent PLgel 5  $\mu\text{m}$  MIXED-C columns are well suited to the analysis of polyurethanes.



PLgel 5  $\mu$ m MIXED-c columns are designed for rapid polymer analysis. With its linear calibration up to 2 million MW, this is the column of choice for highest resolution and accuracy in molecular weight distribution analyses. Rapid solvent change capability, excellent temperature stability and the high resolution of the PLgel 5  $\mu$ m MIXED-C also provide the versatility essential for today's R&D laboratory.

### Conditions

Columns:	2 x PLgel 5 $\mu$ m MIXED-C, 300 x 7.5 mm (part number PL1110-6500)
Eluent:	DMF + 0.1% LiBr
Flow Rate:	1.0 mL/min
Temperature:	60 °C
Detection:	390-MDS Multi Detector Suite (differential refractive index)



*Figure 1. Analysis of polyurethane using PLgel 5  $\mu$ m MIXED-C columns*

[www.agilent.com/chem](http://www.agilent.com/chem)

This information is subject to change without notice.

© Agilent Technologies, Inc. 2015

Published in UK, April 30, 2015

5991-5812EN



**Agilent Technologies**