

## **Analysis of Polyvinyl Pyrrolidone** with DMAc

### **Application Note**

Materials Testing and Research, Polymers

#### **Author**

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#### Introduction

Used as a constituent in a soap formulation, a polyvinyl pyrrolidone sample was found to be soluble in the polar eluent, dimethylacetamide. It was successfully analyzed using Agilent PLgel 10 µm MIXED-B columns.

To minimize polyelectrolyte effects, lithium chloride was added to the eluent.





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.

# 15 min 24

Figure 1. Analysis of polyvinyl pyrrolidone using PLgel 10  $\mu$ m MIXED-B columns

#### **Conditions**

Columns: 3 x PLgel 10 µm MIXED-B,

300 x 7.5 mm (part number

PL1110-6100)

 $\begin{array}{lll} \mbox{Eluent:} & \mbox{DMAc} + 0.5 \begin{tabular}{ll} \mbox{LiCl} \\ \mbox{Flow Rate:} & 1.0 \mbox{ mL/min} \\ \mbox{Loading:} & 0.2 \begin{tabular}{ll} \mbox{W/v}, 100 \mbox{ µL} \\ \mbox{} \end{array}$ 

Temperature: 60 °C

Detection: 390-MDS Multi Detector

Suite (differential refractive index)

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