Analysis of Silicone Fluids with Good Detector Response
Agilent PLgel 5 µm MIXED-C Columns

Technical Overview

Introduction

PLgel MIXED-C columns are well suited to the analysis of silicone fluids. 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.
Figure 1 shows the analysis of polydimethylsiloxane fluid with a quoted kinematic viscosity of 60,000 cS. Toluene is ideal as the eluent for this type of polymer because of the high dn/dc value, providing good detector response.

Rapid solvent change capability, excellent temperature stability and the high resolution of the PLgel 5 μm MIXED-C provide the versatility essential for today’s R&D laboratory.

**Conditions**

- **Column:** 3 x PLgel 5 μm MIXED-C, 300 x 7.5 mm (part number PL1110-6500)
- **Eluent:** Toluene
- **Flow Rate:** 1.0 mL/min
- **Detection:** RI

*Figure 1. Analysis of a polydimethylsiloxane fluid with a quoted kinematic viscosity of 60,000 cS*