

# Preparative Gel Permeation Chromatography - Loading

## Technical Overview

### Introduction

Loading in preparative gel permeation chromatography (GPC) is dependent on molecular weight and can be much greater for low Mw materials than for polymers. In any case, there should be at least 10 times scale up from analytical to preparative GPC. For very low molecular weight materials such as epoxy resins, the loading can be significantly increased, as shown in Figure 1.

### Conditions

|           |   |
|-----------|---|
| Column    | 2 × Agilent PLgel 10 $\mu$ m 100Å, 25 × 300 mm (p/n PL1210-6120)                            |
| Eluent    | THF   |
| Flow rate | 9.0 mL/min  |
| Loading   | Analytical 5 mg/mL, 1 mL (5 mg on-column)<br>Preparative 100 mg/mL, 3 mL (300 mg on-column) |
| Detector  | RI  |
| System    | Agilent 1260 Infinity GPC-SEC Analysis System   |



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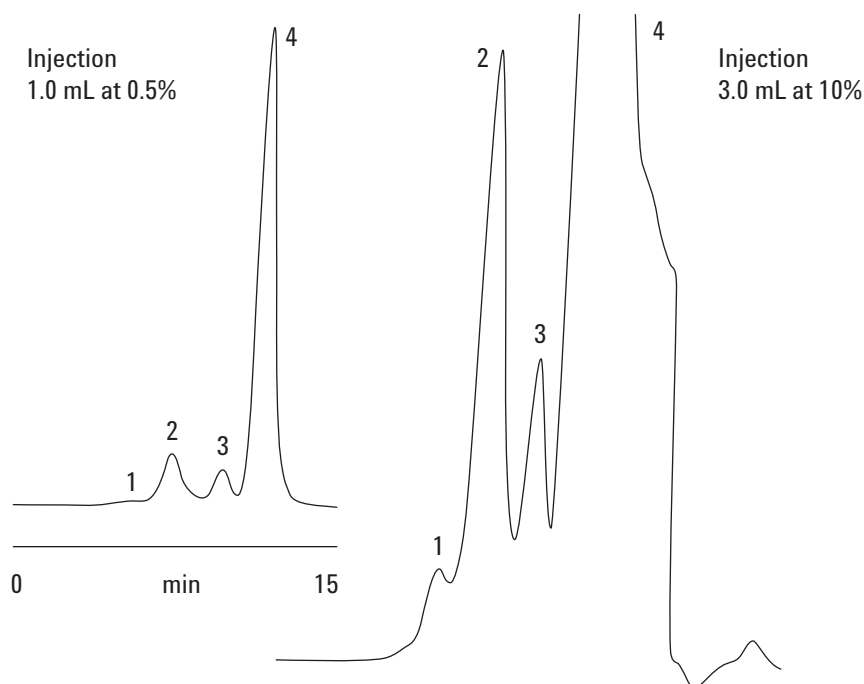


Figure 1. Comparison of analytical (left) and preparative (right) loadings in the quantification of four epoxy resin components on an Agilent PLgel 10 µm two-column set.

## GPC/SEC Columns and Calibrants from Agilent

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