Polycarbonate Analysis with Less Solvent

Agilent PLgel 5 µm MiniMIX-C Columns

Technical Overview

Introduction

As a hazardous solvent, reduced consumption of chloroform can be achieved by the use of narrow bore columns when analyzing polycarbonates. Two PLgel MiniMIX-C columns are recommended per set.

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To maintain the same linear velocity through the column, the volumetric flow rate must be reduced to 0.3 mL/min, in line with the column cross sectional area. This provides significantly lower solvent consumption. Sample loadings are scaled down in line with the reduced column volume, and system dead volume minimized to avoid excessive band broadening.

Narrow bore GPC columns offer high performance, excellent solvent compatibility and mechanical stability. These columns can be used with conventional GPC equipment and provide high performance, comparable to our conventional ID columns, the benefit of ~ 70% reduction in solvent consumption, increased operator safety and reduced solvent disposal costs.

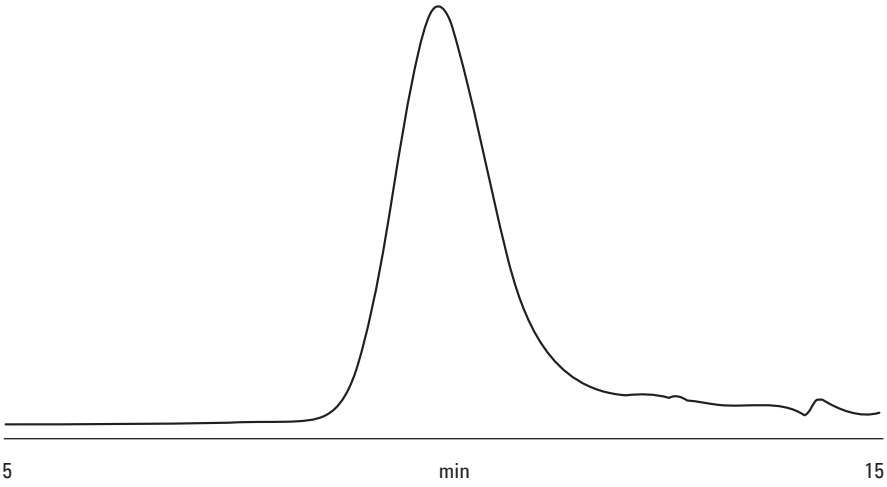

Figure 1. Analysis of a polycarbonate using PLgel 5 µm MiniMIX-C columns

Conditions

Column:	2 x PLgel 5 µm MiniMIX-C, 250 x 4.6 mm (part number PL1510-5500)
Eluent:	Chloroform
Flow Rate:	0.3 mL/min
Loading:	0.1%, 20 µL
Detection:	RI

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