

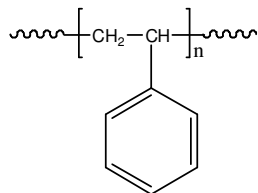
Sample Name: Polystyrene-Broad Distribution

SEC of Homopolymer

P5385A-S Broad Distribution

Sample #: P5385A-S

Structure:



Composition:

$M_n \times 10^3$	PDI
1,400	1.5

Synthesis Procedure:

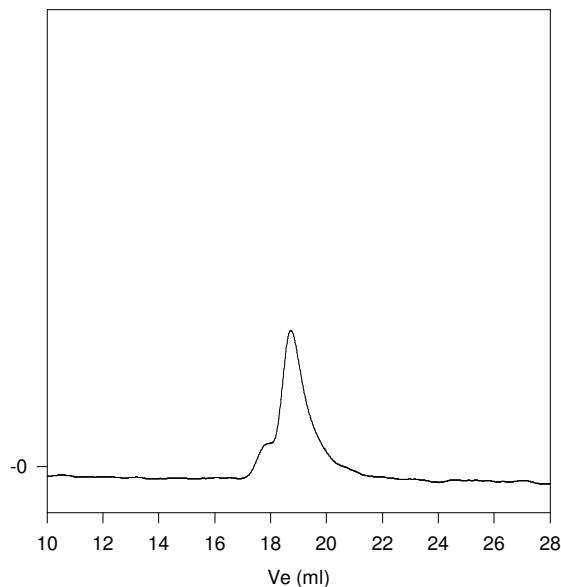
Polystyrene is obtained by free radical polymerization of styrene.

Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Polystyrene is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.



Size exclusion chromatograph of polystyrene:

$M_n=1,400,000$ $M_w=2,100,000$, $PI=1.5$

T_g of polystyrene as function of molecular weight

