

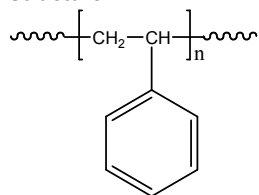
**Sample Name: Polystyrene-Broad  
Distribution**

**SEC of Homopolymer**

**P10033-S**

**Sample #: P10033-S**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
450.0	2.5

**Synthesis Procedure:**

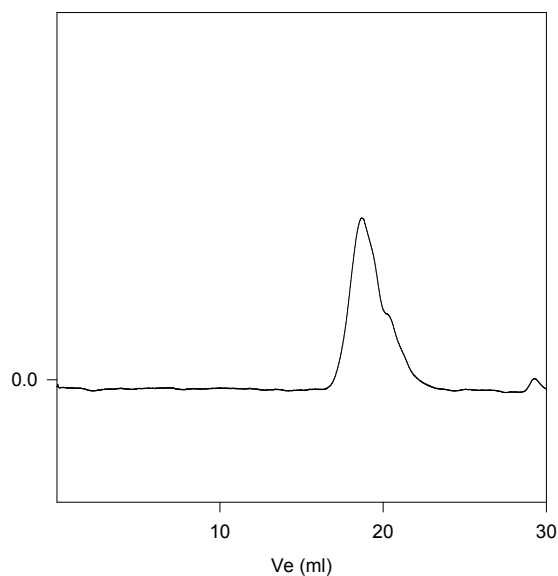
Polystyrene is obtained by free radical polymerization of styrene.

**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  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes.



— Polystyrene,  $M_n=450,000$ ,  $M_w=1,100,000$ ,  $PI=2.5$

$T_g$  of polystyrene as function of molecular weight

