

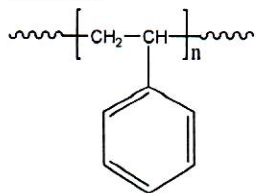
**Sample Name: Polystyrene-Broad  
Distribution**

**SEC of Homopolymer**

**P11080-S**

**Sample #: P11080-S**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
195.0	1.95

**Synthesis Procedure:**

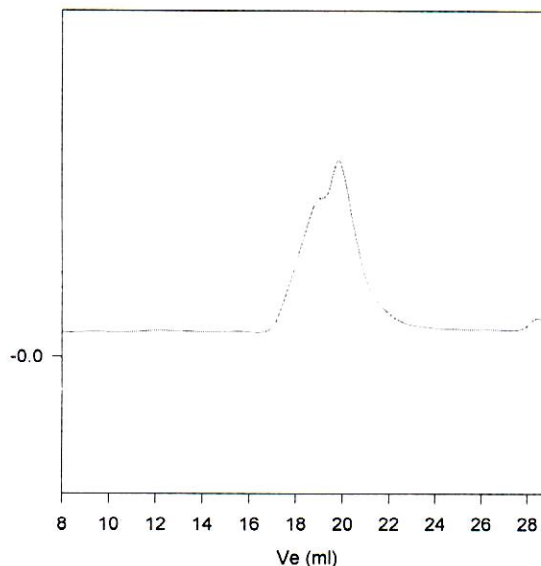
Polystyrene is obtained by free radical polymerization of styrene.

**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:

$M_n=195,000$ ,  $P_w=395,000$   $M_w/M_n=1.95$

$T_g$  of polystyrene as function of molecular weight

