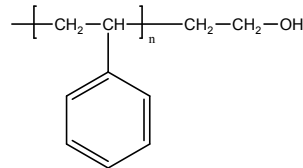


**Sample Name:**  
**Hydroxy Terminated Polystyrene**

**Sample #: P 4388- SOH**

**Structure:**

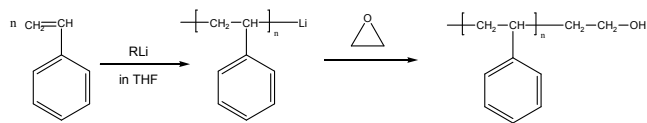


**Composition:**

|                   |      |
|-------------------|------|
| $M_n \times 10^3$ | PDI  |
| 130.0             | 1.07 |
| $T_g$ (°C)        | 106  |

**Synthesis Procedure:**

Hydroxy terminated polystyrene was prepared by living anionic polymerization. The scheme of the reaction is illustrated below:



**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

**Thermal analysis:**

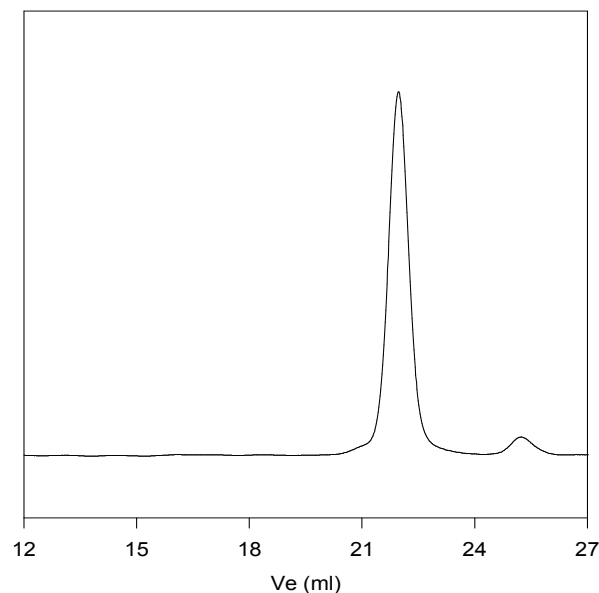
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

Polymer is soluble in toluene, THF,  $\text{CHCl}_3$  and can be precipitated in water and cold methanol.

**SEC of Sample:**

**P4388-SOH**



Size exclusion chromatography of  $\omega$  hydroxy Terminated polystyrene:  
 $M_n=130000$ ,  $M_w=139000$ ,  $PI=1.07$  functionality>95%

**DSC thermogram for the sample:**

