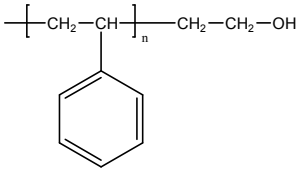
Sample Name:
ω-Hydroxy Terminated Polystyrene

Sample #: P13135- SOH

Structure:

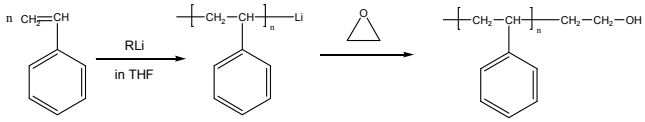


Composition:

Mn x 10^3	PDI
16.0	1.09
T_g (°C)	92 °C

Synthesis Procedure:

ω,-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 solution using phenolphthalein as the indicator.

Thermal analysis:

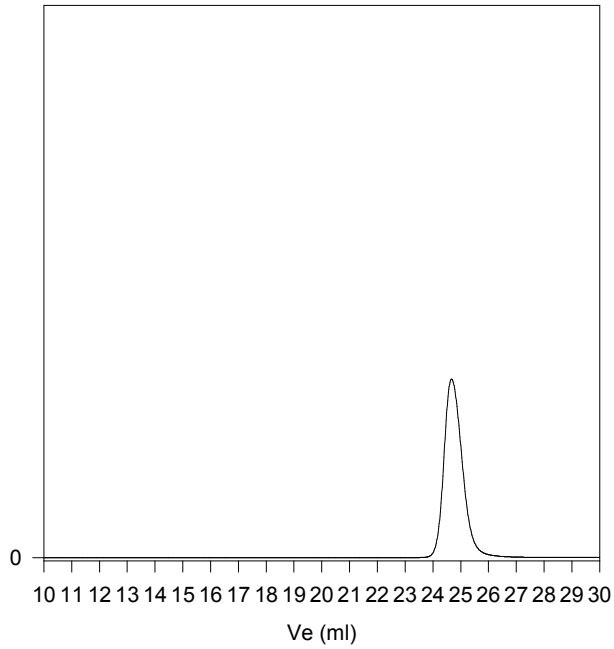
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min.The inflection glass transition temperature (T_g) has been considered.

Solubility:

Polymer is soluble in toluene, THF, $CHCl_3$ and can be precipitated in water and cold methanol.

SEC of Sample:

P13135-SOH



Size Exclusion chromatography of Hydroxy end poly styrene

—— Polystyrene, M_n=16,000, M_w=17,000 PI=1.09

DSC thermogram for the sample: