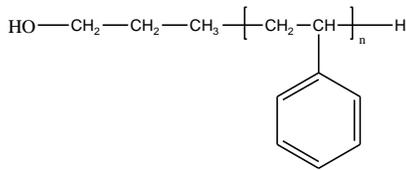


Sample Name: α -Hydroxy Terminated Polystyrene

Sample #: P5339-SOH

Structure:



Composition:

$M_n \times 10^3$	PDI
320.0	1.5
T_g ($^{\circ}\text{C}$)	100

Synthesis Procedure:

α -Hydroxy Terminated Polystyrene was prepared by living anionic polymerization using hydroxyl protected initiator (ethyl-3-lithiopropylacetaldehyde).

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:

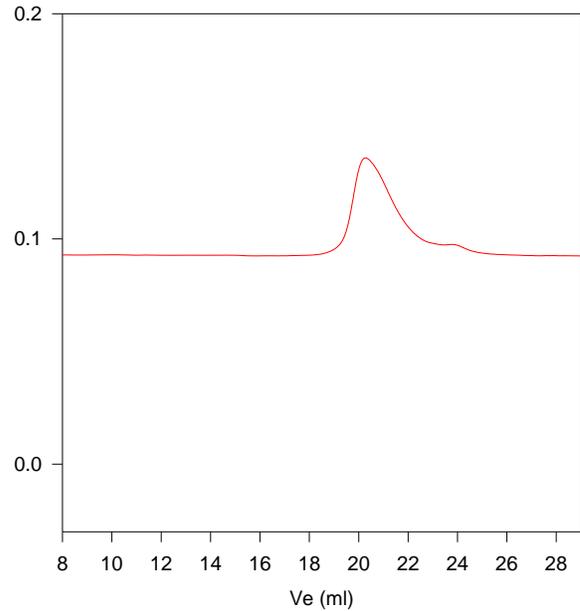
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of $10^{\circ}\text{C}/\text{min}$. The inflection glass transition temperature (T_g) has been considered.

Solubility:

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

SEC of Sample:

P5339-SOH



$M_n=320000$, $M_w=480000$, $PI=1.5$, functionality>99%

Size exclusion chromatography of α hydroxy Terminated polystyrene:

DSC thermogram for the sample:

