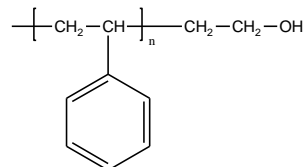


Sample Name:
 ω -Hydroxy Terminated Polystyrene

Sample #: P8089- SOH

Structure:

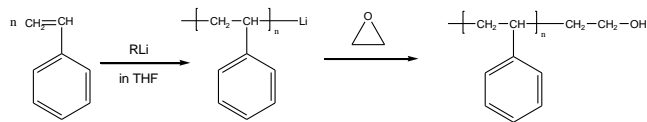


Composition:

$M_n \times 10^3$	PDI
14.0	1.09
T_g (°C)	91

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 using phenolphthalein as the indicator.

Thermal analysis:

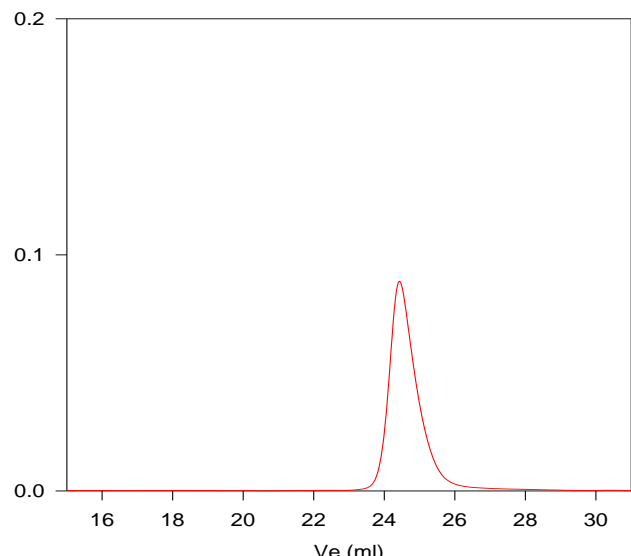
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility:

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

SEC of Sample:

P8089-SOH



Size exclusion chromatography of ω hydroxy Terminated polystyrene

$M_n=14000$, $M_w=15300$, $PI=1.09$, functionality>99%

Solution Viscosity in THF at 35 oC: 0.189dl/g

dn/dc in THF at 35 oC: 0.185ml/g

radius of Gyration in THF at 35 oC: 4.58nm

DSC thermogram for the sample:

