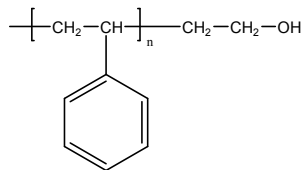


Sample Name:
Hydroxy Terminated Polystyrene

Sample #: P4385-SOH

Structure:

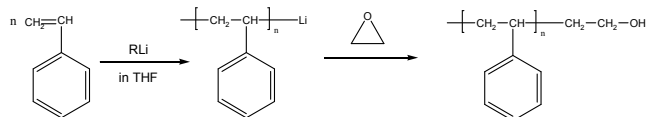


Composition:

$M_n \times 10^3$	PDI
42.0	1.03
$T_g (^{\circ}C)$	100

Synthesis Procedure:

Hydroxy terminated polystyrene was prepared by anionic living polymerization of styrene in THF followed by termination with ethylene oxide. 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.

Thermal analysis:

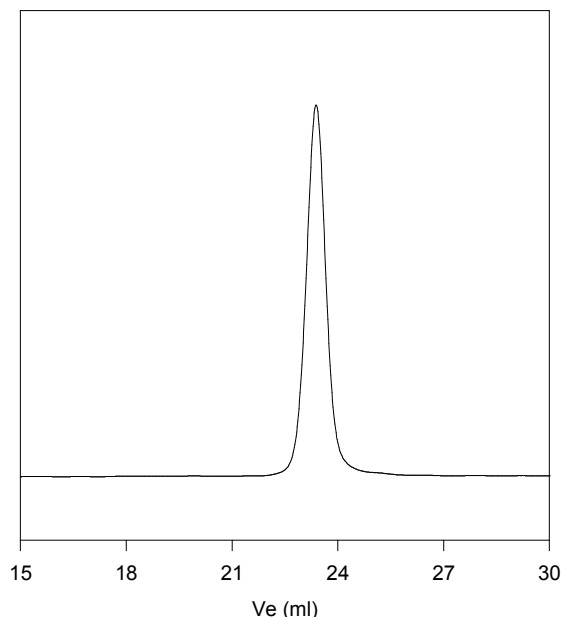
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}C/min$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polystyrene is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of Sample:

P4385-SOH



Size exclusion chromatography of ω hydroxy Terminated polystyrene:
 $M_n=42000$, $M_w=44500$, $PI=1.06$, functionality>98%

DSC thermogram for the sample:

