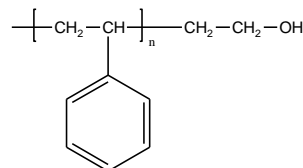


Sample Name:
 ω -Hydroxy Terminated Polystyrene

Sample #: P7497- SOH

Structure:

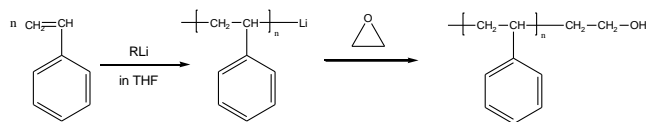


Composition:

Mn x 10 ³	PDI	Functionality
1.7	1.14	>99%
T _g (°C)	66	

Synthesis Procedure:

Hydroxy Terminated Polystyrene was prepared by living anionic polymerization of styrene using a monofunctional initiator 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. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

Thermal analysis:

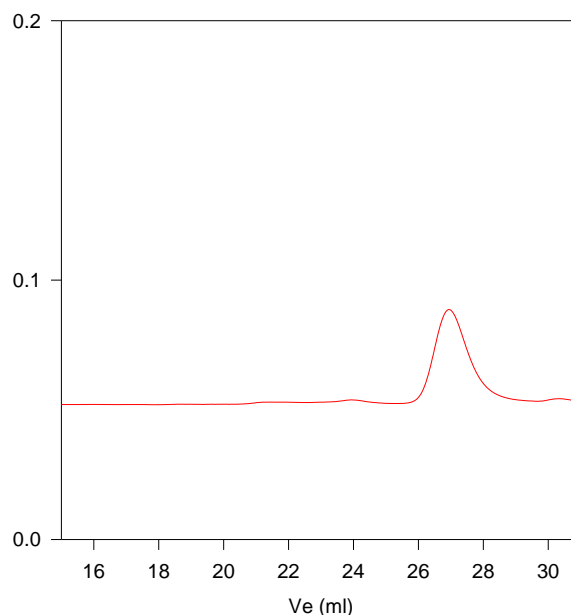
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility:

Polymer is soluble in toluene, THF, CHCl₃ and can be precipitated in water and cold methanol.

SEC of Sample:

P7497-SOH



Size exclusion chromatography of ω hydroxy Terminated polystyrene
M_n=1700, M_w=1900, PI=1.14, functionality>99%

DSC thermogram for the sample:

