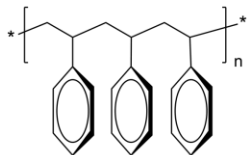


Sample Name: Polystyrene-Isotactic

Sample #: P43845-Siso

Structure:



Composition:

Mn × 103	PDI
122.0	1.9

Synthesis Procedure:

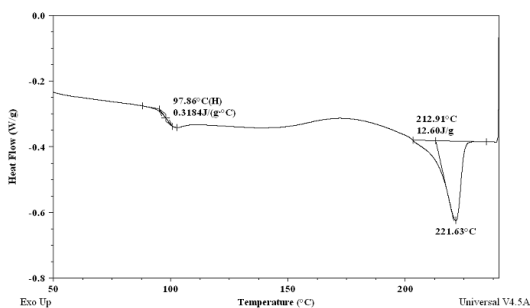
The polymer is prepared by Ziegler-Natta catalyst system derived from a mixture of lithium tetraalkylaluminate, aluminum chloride, and titanium tetrachloride. Polymer is insoluble in Acetone.

Characterization:

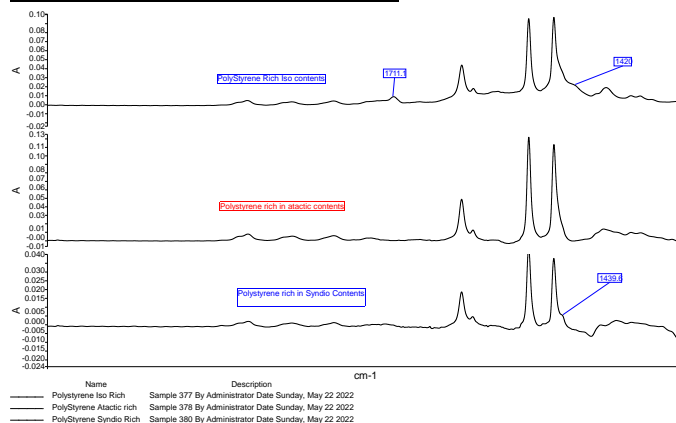
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF.

Polymer as such is not soluble in THF or in Toluene. Polymer was annealed at T_g and cool it to -20 °C rapidly. Polymer now soluble in THF or in Toluene.

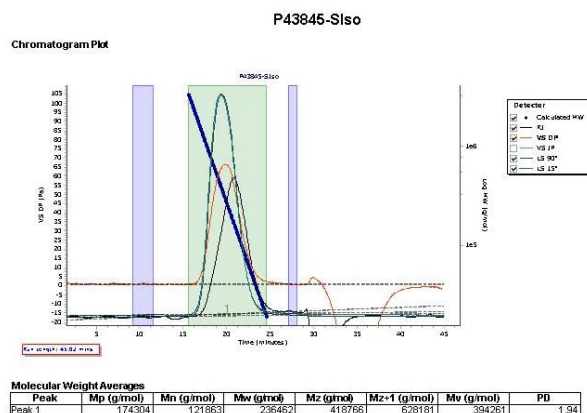
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.



FTIR of Polystyrene: Isotactic, Atactic and Syndiotactic rich polymer:



SEC elugram of the Homopolymer:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mo (g/mol)	PD
Peak 1	174204	121863	236462	418768	628181	394261	1.94

¹³C NMR spectrum of the Sample:

