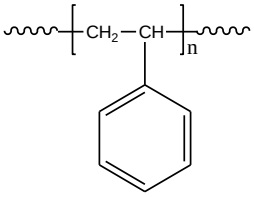
Sample Name: **Polystyrene**

Electronic Grade

Sample #: **P10453E-S**

Structure:

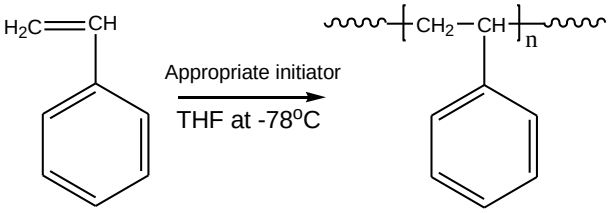


Composition:

Mn x 10^3	PDI
93.0	1.05

Synthesis Procedure:

Polystyrene is obtained by living anionic polymerization of styrene as illustrated below:



Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Purification:

The obtained polymer was dissolved in benzene and filter through a membrane 0.5 μ nylon filter. The obtained solution was freeze-dried under reduced pressure.

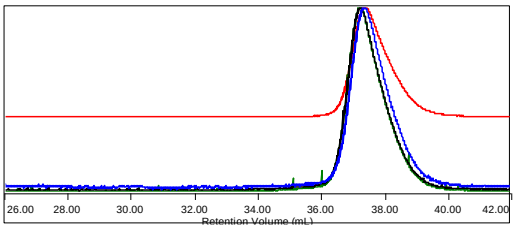
Solubility:

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

SEC elugram of the Sample:

Sample ID: P10453-S

Concentration (mg/mL)	2.0023
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-July-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
p10453-S_2011-10-03_15;35;14_01.vdt	93,369	97,582	94,648	1.045	0.8074