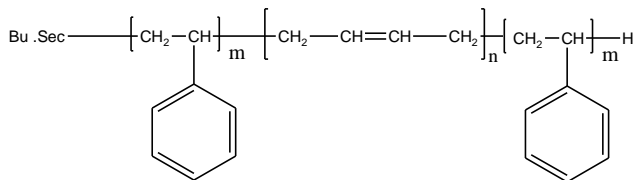


Sample Name:

**Poly (Styrene-b-butadiene-b-Styrene)**  
**Poly butadiene rich in 1, 2 microstructure**

Sample #: P2859-SBdS

Structure:

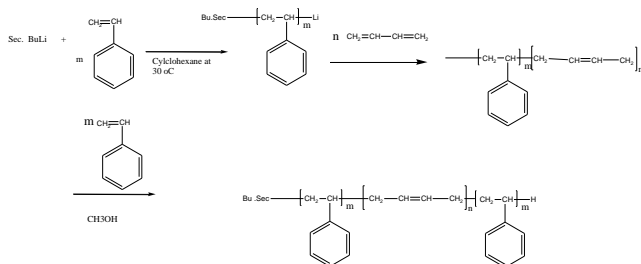


Composition:

Mn x 10 <sup>3</sup> (S-b-Bd-S)	PDI
55.0-b-130.0-b-50.0	1.10
T <sub>g</sub> for PBd block	-39°C
T <sub>g</sub> for PS block	106°C

Synthesis Procedure:

Poly (styrene-b-butadiene-b-styrene) is prepared by living anionic polymerization with sequence addition of styrene followed by butadiene and then styrene again. 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.

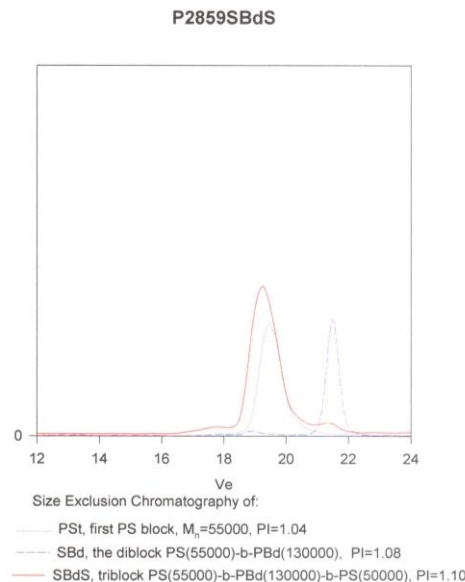
Thermal analysis

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 20°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<sub>g</sub>).

Solubility:

Polymer is soluble in THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexane (depending on the compositions).

SEC elugram of Sample:



Thermogram for Bd and PS block polymers:

