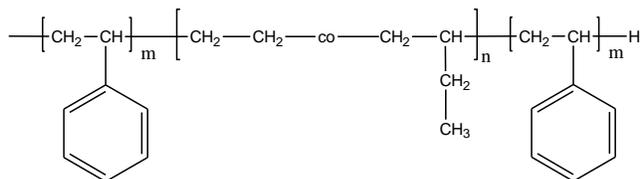


Sample Name:

Poly(Styrene-b-ethylene /butylene-b-Styrene)
Obtained from Hydrogenation of SBdS
triblock copolymer where Poly butadiene rich
in 1,4 microstructure

Sample #: P5999A-SEBS

Structure:



Composition:

Mn x 10 ³ (S-b-Bd-S)	PDI
15.0-b-73.0-b-15.0	1.19

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. Polymerization carried out in THF. The obtained polymer hydrogenated in presence of Pd/CaCo₃/Wilkinson catalyst. Purification after the Hydrogenation:

The obtained polymer was filter to remove the catalyst.

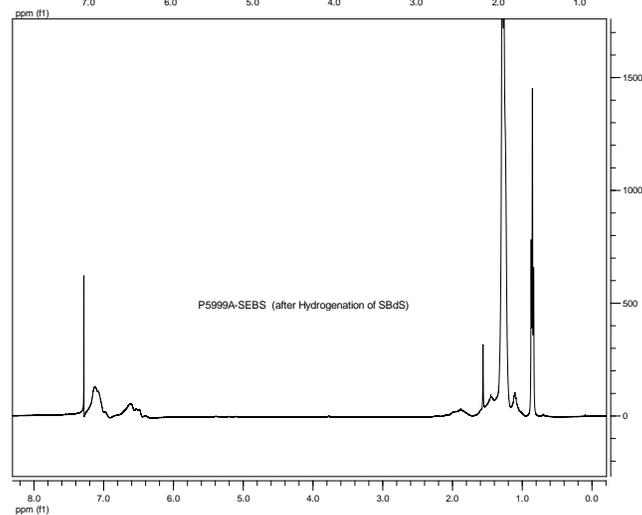
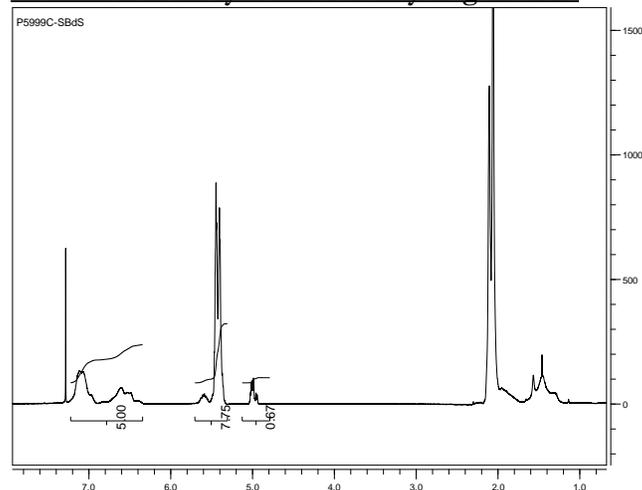
Characterization:

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.

Solubility:

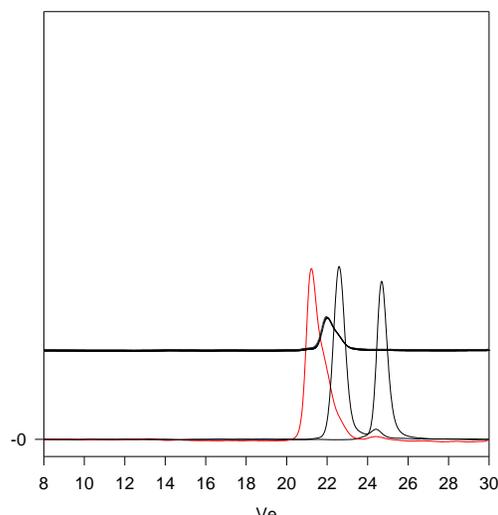
Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes (depending on the compositions).

¹H NMR of the Polymer Before Hydrogenation:



SEC of Sample:

SBdS Precursor for P5999A-SBES



Size Exclusion Chromatography of:

- PS block, M_n=15000, M_w: 15,600 PI=1.05
- SBd, the diblock PS(15000)-b-PBd(35,000), PI=1.07
- SBdS, triblock PS(15000)-b-PBd(70,000)-b-PS(15000), PI=1.19
After Hydrogenation: 15000-b-73000-b-15000 PI: 1.19
The Elution count after Hydrogenation was found lower than its SBdS triblock copolymer