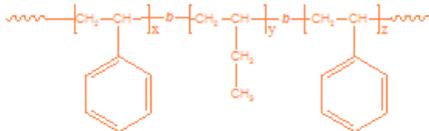


Sample Name: Poly(styrene)-b-poly(ethylene-co-butylene)-b-poly(styrene)

Obtained from the Hydrogenation of Poly (styrene-butadiene-Styrene) Poly butadiene rich in 1,2 microstructure

Sample #: P665-SEBS

Structure:



Composition:

Mn x 10 ³ (S-b-PEB-S)	PDI
95.2-b-457.8-b-97.3	1.07

T _g for PBd block	-15°C
T _g 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. Polymerization carried out in THF. The obtained polymer hydrogenated in presence of Pd/CaCo₃/Wilkinson catalyst.

Purification after the Hydrogenation:

The obtained polymer was filtered to remove the catalyst. It was observed that even after the purification by passing several times through the filter paper the obtained polymer is **light dark in color**. The solution in Toluene is light ivory in color.

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.

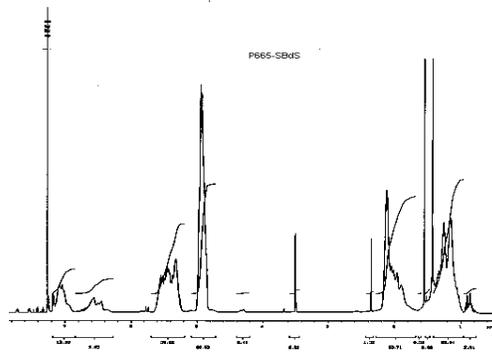
Thermal analysis

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_g).

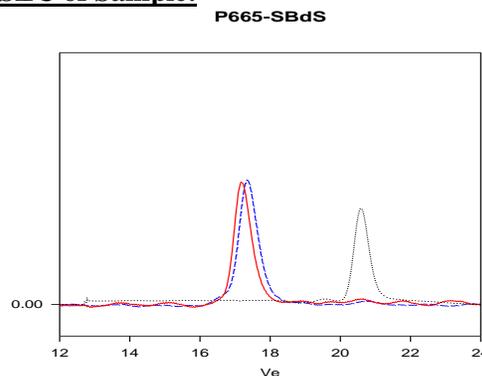
Solubility:

Polymer is soluble in Hot THF and toluene.

HNMR of the the precursor pf PS-b-Bd-S) sample:



SEC of Sample:



Size Exclusion Chromatography of:
..... P665-St, the first PS block, M_n=95200, PI=1.03
--- P665-SB, the diblock PS(95200)-b-PBd(457800), PI=1.07
— P665-SBS, the triblock PS(95200)-b-PBd(457800)-b-PS(97300), PI=1.07

Thermogram for Bd and PS block polymers:

