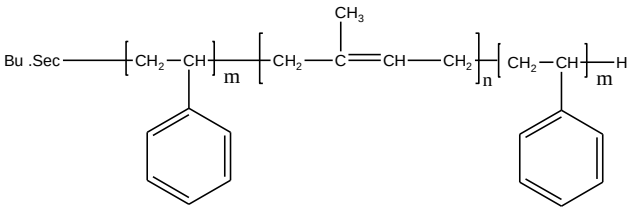
Sample Name:
Poly(Styrene-b-Isoprene-b-Styrene)
Poly isoprene rich in 1,4 microstructure
Sample #: P9658-SIPS
Structure:



Composition:

$Mn \times 10^3$ **S-IP-S**	PDI
8.5-b-3.0-b-8.5	1.08
T_g for PS block:	T_g for Ip block:
46 °C	-16 °C

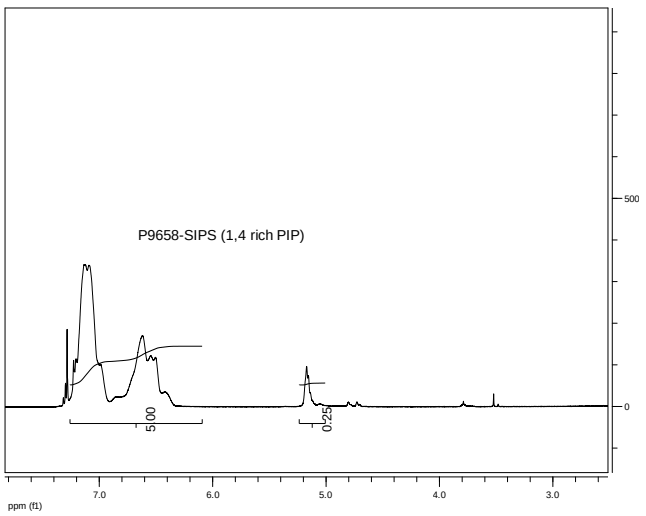
Synthesis Procedure:
Poly(styrene-b-isoprene-b-styrene) is prepared by living anionic polymerization with sequence addition of styrene followed by isoprene and then coupling reaction with stochiometry amount of dimethyl dichloro silane.

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 10°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).

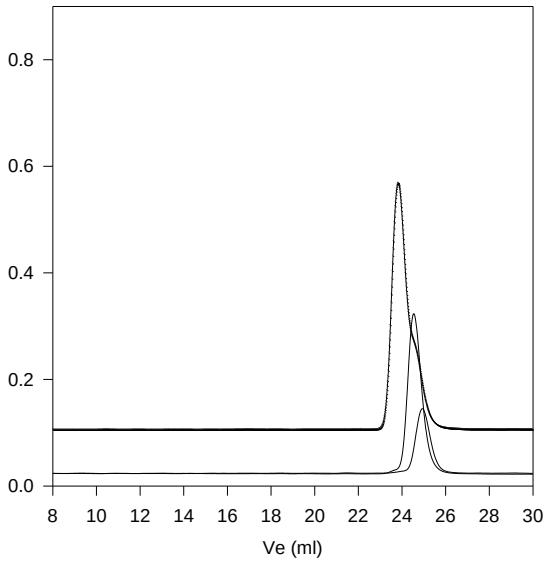
Solubility:
Polymer is soluble in THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexane (depending on the compositions).

H NMR of the Polymer:



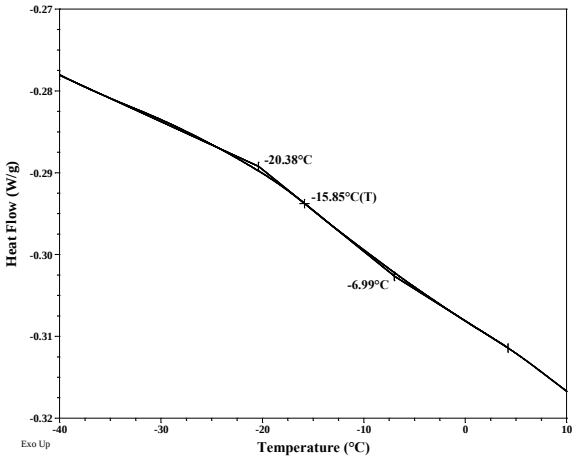
SEC of Sample:

P9658-SIpS



Size exclusion chromatography:
Poly(Styrene first block), M_n=8,500, M_w=9000, PI=1.07
Diblock Copolymer PS(8,500)-b-PiP(1500), PI=1.08
After Coupling
Triblock Copolymer Mn: S(8500)-b-Ip(3000)-b-S(8500) PI:1.08
Composition from H NMR

DSC thermogram for PIP block:



DSC thermogram for PS block: