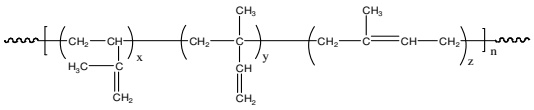
Sample Name: Polyisoprene
1,4- addition and 1,2 and 3,4 rich addition

Sample #: P3689-IP



Composition:
1,2 addition 25%mol
3,4 addition 70%mol
1,4 addition 5%mol

Mn x 10^3	PDI
18.5	1.03
T_g (°C)	-12

Synthesis Procedure:
Polyisoprene is obtained by living anionic polymerization of isoprene in polar media.

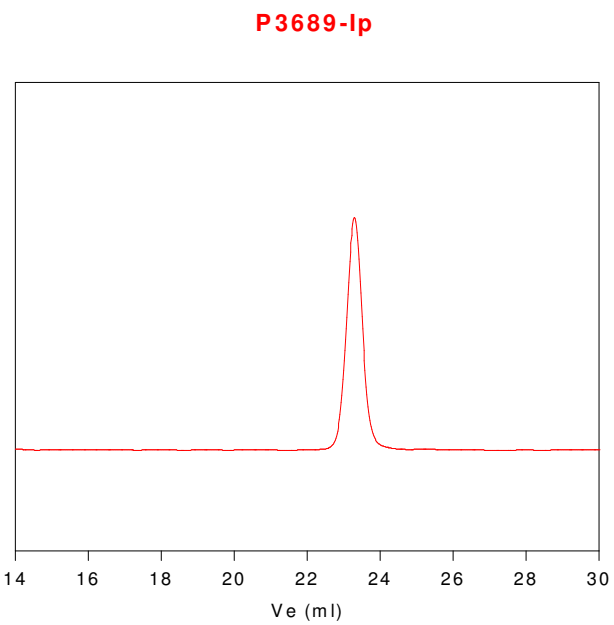
Characterization:

The molecular weight was calculated from NMR and polydispersity index (PDI) was obtained by size exclusion chromatography. 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.The composition of the microstructure was calculated from NMR.

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min.The inflection glass transition temperature (T_g) has been considered.

Solubility:
Polyisoprene is soluble in THF, toluene, hexane, pentane and cyclohexane and precipitates from methanol.

SEC of Homopolymer:



Size Exclusion Chromatogram of Polyisoprene (1,2 or 3,4 addition):

M_n=18500, M_w=19000, M_w/M_n = 1.03

Thermogram for the polymer