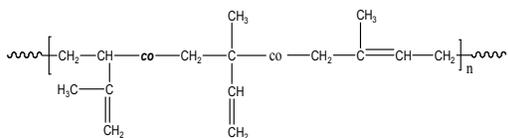


**Sample Name: Polyisoprene**  
**1,4- addition and 1,2 and 3,4 rich addition**

**Sample #: P10603-IP**



**Composition:**

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

Mn x 10 <sup>3</sup>	PDI
45	1.06
T <sub>g</sub> (°C)	-07

**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<sub>g</sub>) has been considered.

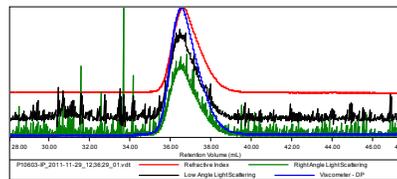
**Solubility:**

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

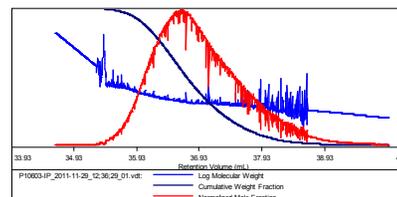
**SEC of Homopolymer:**

Sample ID: P10603-IP

Concentration (mg/mL)	4.0088
Sample dn/dc (mL/g)	0.1250
Method File	PS80K-Oct-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P10603-IP_2011-11-29_12:36:29_01.v.d	45,483	48,204	45,547	1.060	0.7382



**Thermogram for the polymer**

