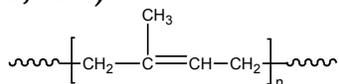


**Sample Name: Polyisoprene**  
**1,4- rich addition**

**Sample #: P9476-IP**  
**(cis 1,4: 80%; trans 1,4:15% and 3,4:5%)**



Mn x 10 <sup>3</sup>	PDI
22.0	1.05
T <sub>g</sub> (°C)	-77

**Synthesis Procedure:**

Polyisoprene is obtained by living anionic polymerization of isoprene in a-polar media such as cyclohexane, toluene or hexane.

**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. 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.

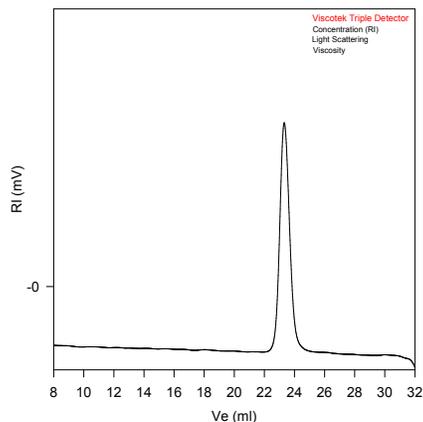
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T<sub>g</sub>) has been considered.

**Solubility:**

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

**SEC of Homopolymer:**

**P9476-IP (1,4 addition)**



Size Exclusion Chromatography of Poly isoprene OH terminated  
— M<sub>n</sub> = 22,000, M<sub>w</sub> = 23,000, M<sub>w</sub>/M<sub>n</sub> = 1.05

**Thermogram for the polymer:**

