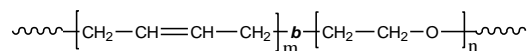


Sample Name: Poly(butadiene-b-ethylene oxide)  
*Polybutadiene rich in 1,4 microstructure*

Sample #: P41407E-BdEO Electronic Grade

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> Bd-b-EO	Mw/Mn (PDI)
56.5-b-82.0	1.10

**Synthesis Procedure:**

The polymer was synthesized by anionic polymerization process.

**Characterization:**

The polymer was characterized by <sup>1</sup>H NMR and SEC.

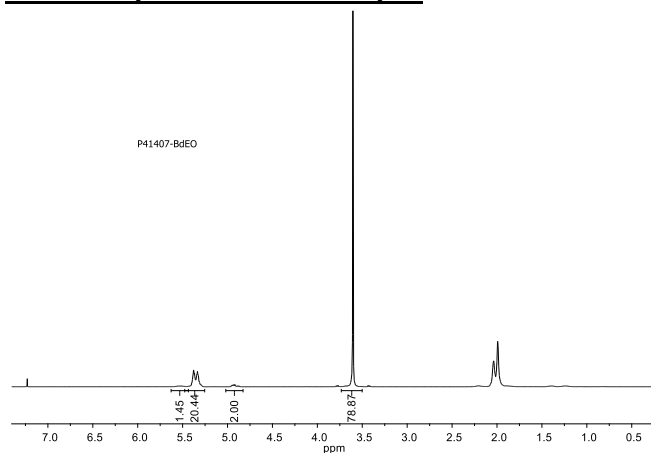
**Purification:**

The obtained polymer was dissolved in benzene and filtered through a membrane 0.5 μ nylon filter. The obtained solution was freeze-dried under reduced pressure.

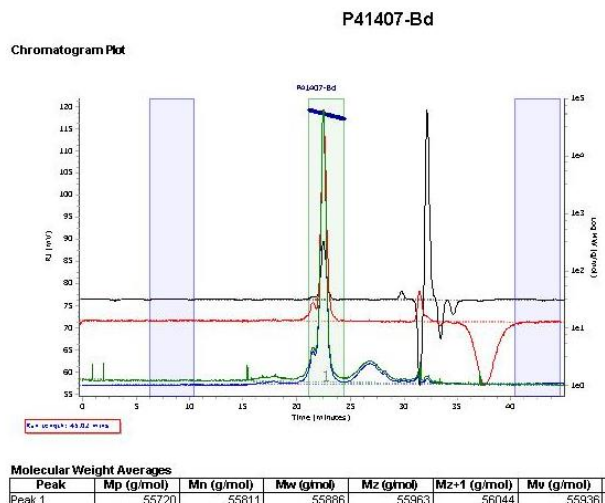
**Solubility:**

Poly(butadiene-b-ethylene oxide) is soluble in THF, CHCl<sub>3</sub>, and toluene. The polymer has variable solubility in hexane, methanol, ethanol and water depending on its composition.

**<sup>1</sup>H NMR spectrum of the sample:**

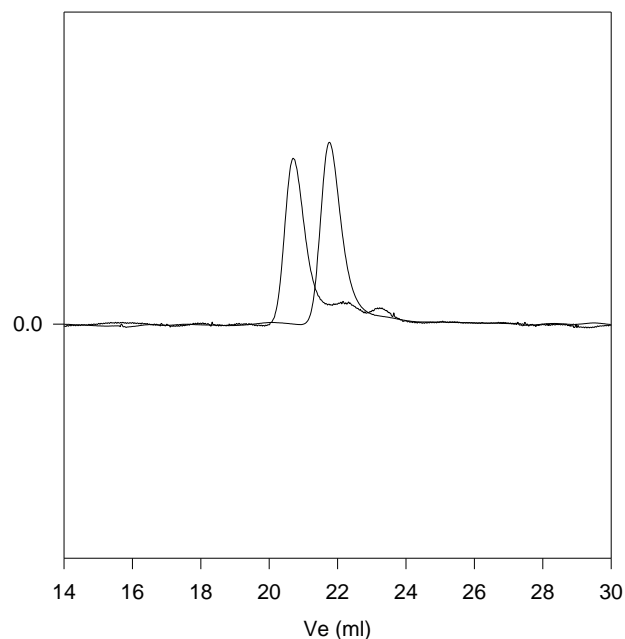


**SEC elugram of Bd Block:**



**SEC profile of the block copolymer:**

P41407-Bd<sub>1,4 rich</sub>EO



Size Exclusion Chromatogram of Poly(butadiene-b-ethylene oxide)

— Polybutadiene: M<sub>n</sub>=56,500, M<sub>w</sub>=57,500, M<sub>w</sub>/M<sub>n</sub>=1.02

— PBd-b-PEO: M<sub>n</sub> PBd(56,500)-PEO(82,000), M<sub>w</sub>/M<sub>n</sub>=1.10

The Mn of PEO is calculated from NMR results,