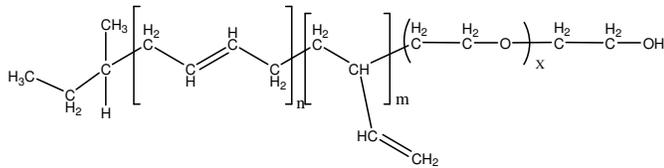


Sample Name: Poly(butadiene-b-ethylene oxide)
Polybutadiene rich in 1,4 microstructure

Sample #: P40107-BdEO
(polybutadiene block rich in 1,4 microstructure)



Composition:

Mn x 10 ³ Bd-b-EO	Mw/Mn (PDI)
13.0-b-7.0	1.04

PBd microstructure	1,4 addition >90%
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Synthesis Procedure:

The polymer was synthesized by anionic process

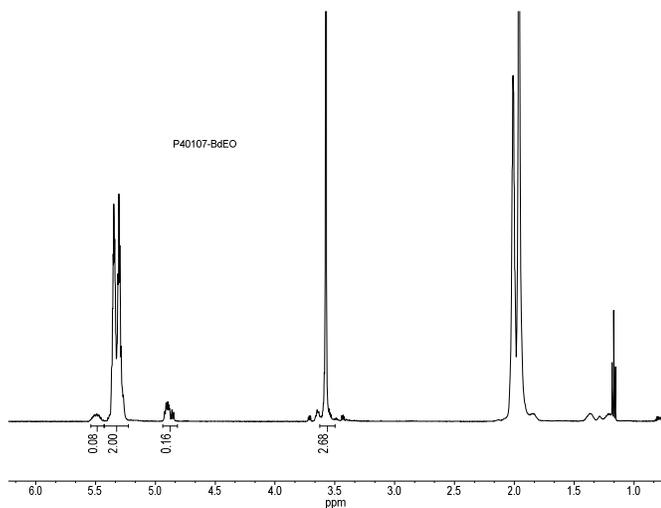
Characterization:

The polymer was characterized by ¹H NMR and SEC.

Solubility:

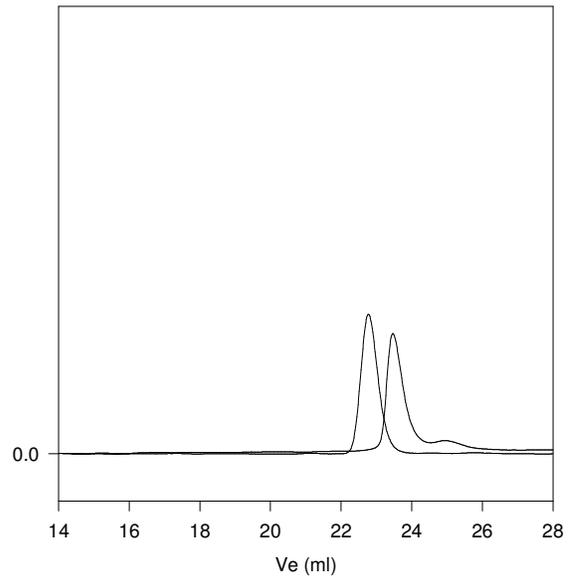
Poly(butadiene-b-ethylene oxide) is soluble in THF, CHCl₃, and toluene. The polymer has variable solubility in hexane, methanol, ethanol and water depending on its composition.

¹H NMR spectrum of the Polymer:



SEC elugram of the block copolymer:

P40107-BdEO



Size exclusion chromatography of poly(butadiene-b-ethylene oxide):

— 1,4, polybutadiene M_n=13,000, M_w=14,000, PI=1.03

— Block Copolymer PBd(13,000)-b-PEO(7,000), PI=1.04 (From nmr)