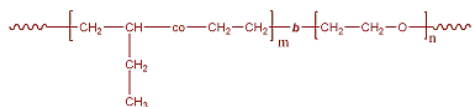


Sample Name: Poly(ethylene)-b-poly (ethylene oxide)

Sample #: P3288-EEO



Composition:

Mn x 10 ³ PE-b-PEO	Mw/Mn (PDI)
1.1-b-3.8	1.11

Characterization:

Polybutadiene polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the vinylic butadiene protons between about 5.0-5.4 ppm with the ethylene oxide protons at 3.6 ppm. Block copolymer PDI is determined by SEC. Note: The ¹H-NMR of 1,2-polybutadiene is composed of 1 proton signal at 5.4 ppm and 2 proton signals at 5.0 ppm. Signals due to vinylic 1,4-polybutadiene are also present at 5.4 ppm.

Hydrogenation: In presence of Pd catalyst.

Figure: ¹H NMR spectrum of the sample

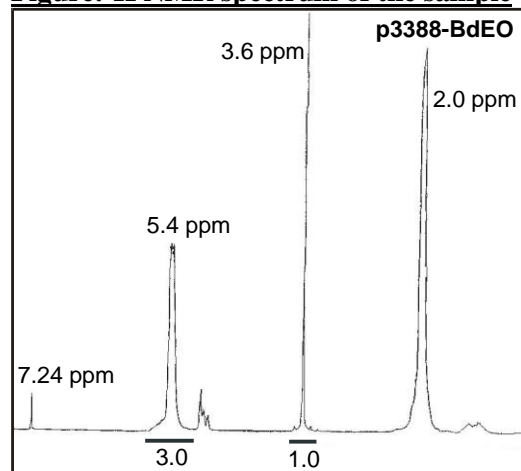
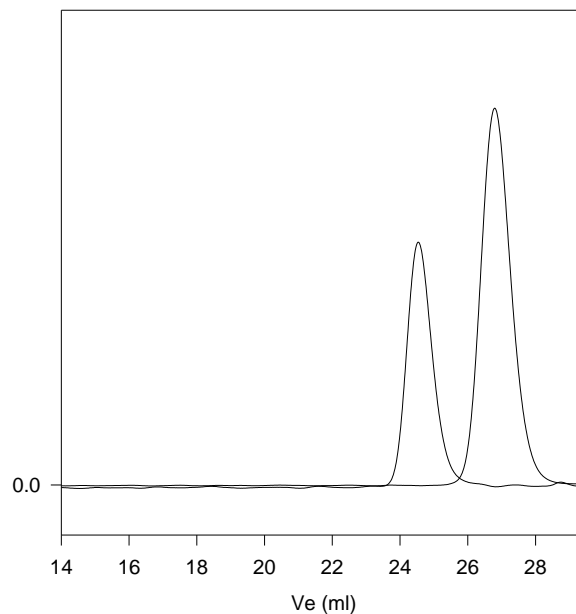


Figure: SEC profile of the block copolymer

P3288-BdEO
Precursor for P3288 EEO



Size exclusion chromatography of poly(butadiene-b-ethylene oxide):
 — OH terminated 1,4 polybutadiene M_n=1100, M_w=1150, PI=1.05