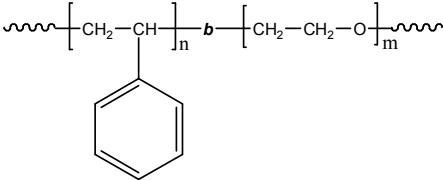


Sample Name: Poly (styrene-b-ethylene oxide)

Sample #: P40247-SEO

Structure:



Composition:

Mn x 10 ³ S-b-EO	PDI
116.0-b-164.0	1.09

Synthesis Procedure:

Poly (styrene-b-ethylene oxide) diblock copolymer is prepared by living anionic polymerization.

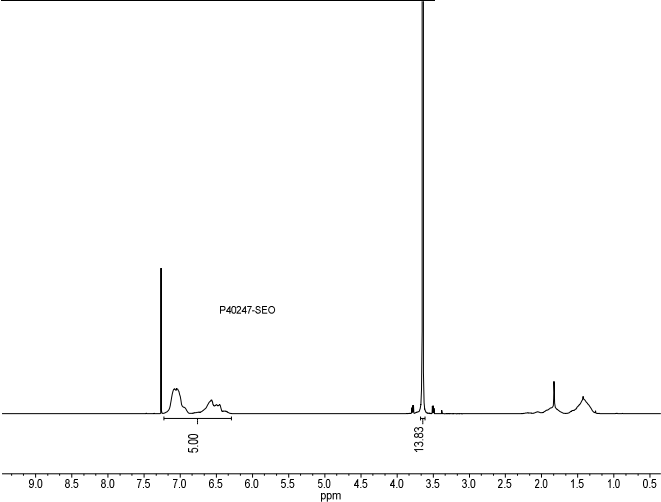
Characterization:

The molecular weight and polydispersity index (PDI) of the block copolymer are characterized by size exclusion chromatography (SEC). The composition of the block copolymer was calculated from ¹H-NMR by comparing the peak area of the phenyl polystyrene protons between 6.4 to 7.2 ppm and the ethylene oxide protons at 3.65 ppm.

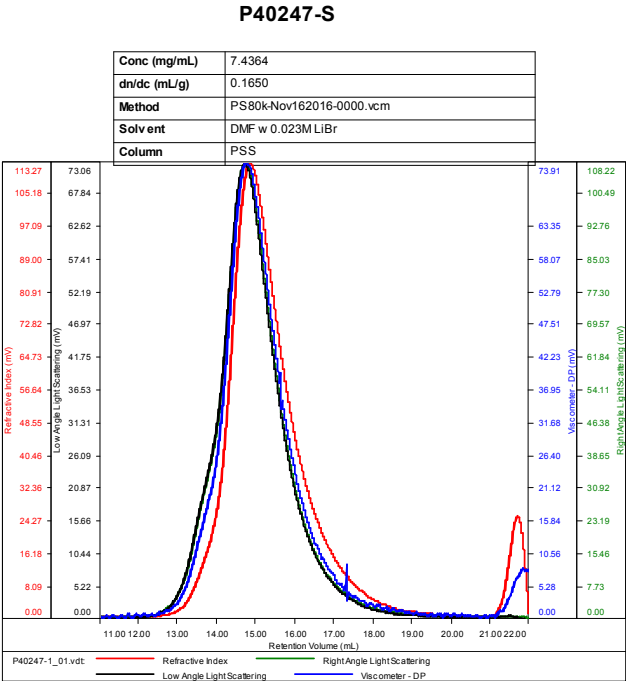
Solubility:

The polymer is soluble in THF (at 35 °C), CHCl₃, benzene, toluene, and dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

¹H NMR spectrum of the polymer:



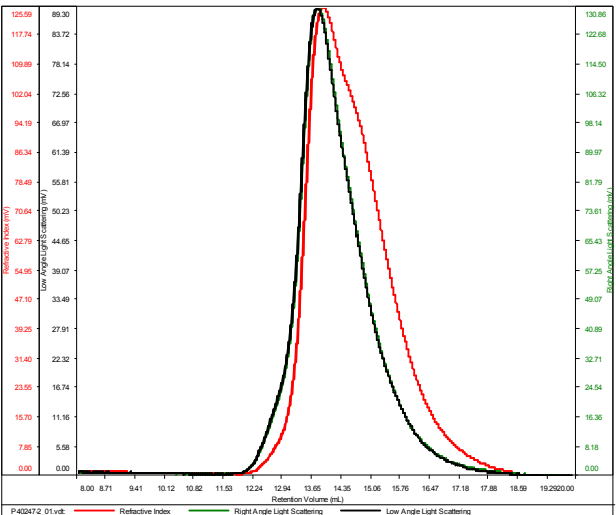
SEC elugram of the block copolymer:



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40247-1_01.vdt	116,644	129,316	126,938	1.109	0.1980

P40247-SEO

Conc (mg/mL)	6.6316
dn/dc (mL/g)	0.0800
Method	PS80k-October192016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40247-2_01.vdt	280,104	307,776	305,505	1.099	0.7191