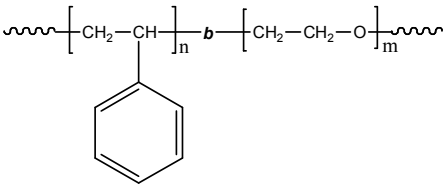


Sample Name: Poly (styrene-b-ethylene oxide)

Sample #: P40248-SEO

Structure:



Composition:

Mn x 10 <sup>3</sup> S-b-EO	PDI
111.0-b-155.0	1.06

Synthesis Procedure:

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

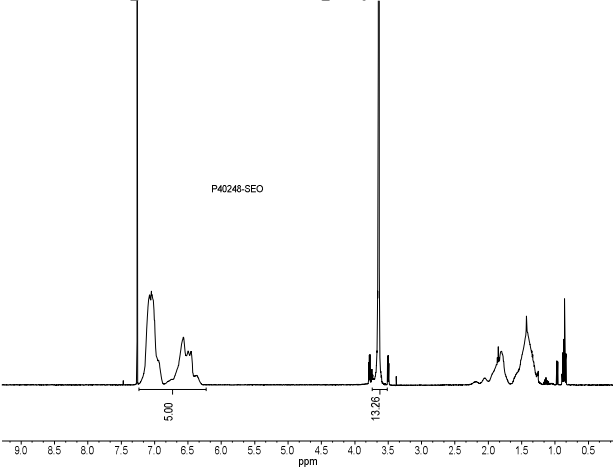
Characterization:

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 <sup>1</sup>H-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.

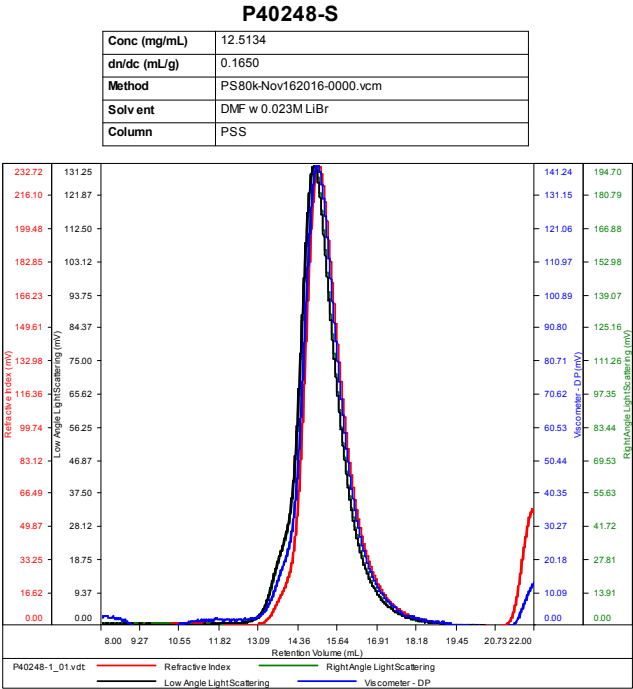
Solubility:

The polymer is soluble in THF (at 35 °C), CHCl<sub>3</sub>, benzene, toluene, and dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

<sup>1</sup>H NMR spectrum of the polymer:

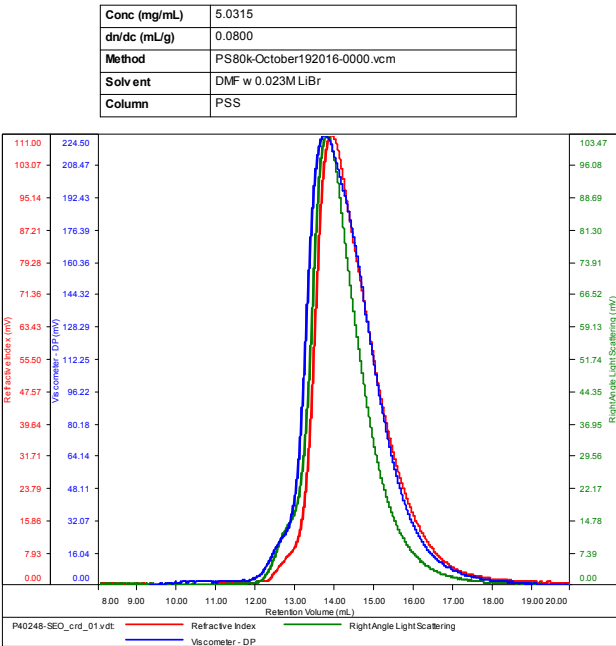


SEC elugram of the block copolymer:



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40248-1_01.vdt	111,681	117,578	111,942	1.053	0.1905

**P40248-SEO**



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40248-SEO_crd_01.vdt	266,576	284,472	272,832	1.067	0.7225