

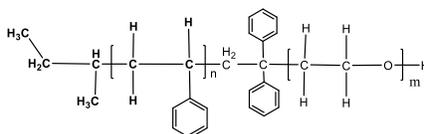
## Product Profile

### Identification

**Product Name:** Poly(styrene-b-ethylene oxide)

**Product Lot Number:** P44891-SEO

**Product Chemical Architecture:**



### Composition:

<b>Composition (S-b-EO)</b>	<b>3,800-b-6,500</b>
<b>Mn (g/mole)</b>	<b>10,300</b>
<b>Mw (g/mole)</b>	<b>11,400</b>
<b>Mw/Mn</b>	<b>1.09</b>
	<b>S<sub>37</sub>EO<sub>144</sub></b>

**Method of Synthesis** The polymer is synthesized by anionic polymerization process.

### Solubility in different solvents:

THF	√	DMF	√
Alcohol	X	CHCl <sub>3</sub>	√
Toluene-Hot	√	Water	×

### Validation of Architecture

#### A. Gel Permeation Chromatography (GPC), SEC Profile:

Molecular weights were determined by Agilent Technologie 1260 Infinity II GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LS 15°) and three columns (PLgel, 7.5x300 mm, 5µm-10µm, 10<sup>5</sup>-10<sup>6</sup>Å). THF (stabilized BHT) with 1%(v/v%) TEA was the eluent. The flow rate was 1.0 ml/min.

#### B. NMR (H<sup>1</sup>NMR) of S-OH and SEO

Sample was dissolved in CDCl<sub>3</sub>. <sup>1</sup>H NMR spectra was determined using a 500 MHz. Bruker Avance III spectrometer.

