

## Product Profile

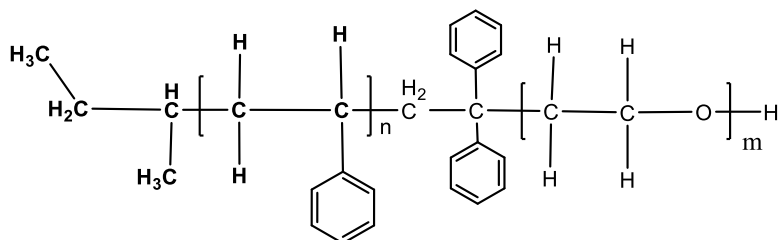
### Identification

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

**Product Lot Number:** P44745-SEO

**CAS #:** Not Available

**Product Chemical Architecture:**



**Composition:**

Composition (S-b-EO)	2,500-b-23,500
EO mole%	4.7
Mn (g/mole)	25,000
Mw (g/mole)	25,500
Mw/Mn	1.03
dn/dc (mL/g) in THF at 30 °C	0.075

### Method of Synthesis

The polymer is synthesized by anionic polymerization process.

**Solubility in different solvents:**

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

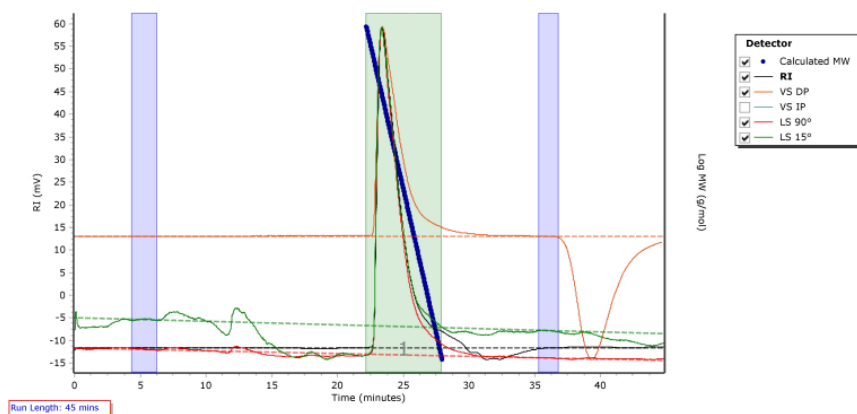
### Validation of Architecture

#### 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.

### Chromatogram Plot

P44741-SEO



### Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	28306	24428	25072	25617	26076	0	1.026

### B. NMR ( $^1\text{H}$ NMR) of SMMA

SMMA sample was dissolved in  $\text{CDCl}_3$ .  $^1\text{H}$  NMR spectra was determined using a 500 MHz. Bruker Avance III spectrometer.

