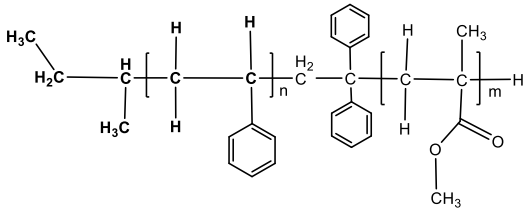
Product Profile

Identification

Product Name: Poly(styrene-b-methylmethacrylate)
Product Lot Number: P11417-R-SMMA
CAS #: 25034-86-0
Product Chemical Architecture:



Composition:

Composition (S-b-MMA)	**9,000-b-9,000**
MMA mole%	**49.0**
Tacticity (atac, iso, syn)	**> 80% syn**
Mn (g/mole)	**18,000**
Mw (g/mole)	**19,000**
Mw/Mn	**1.06**
dn/dc (mL/g) in THF at 30 ºC	**0.138**

Method of Synthesis

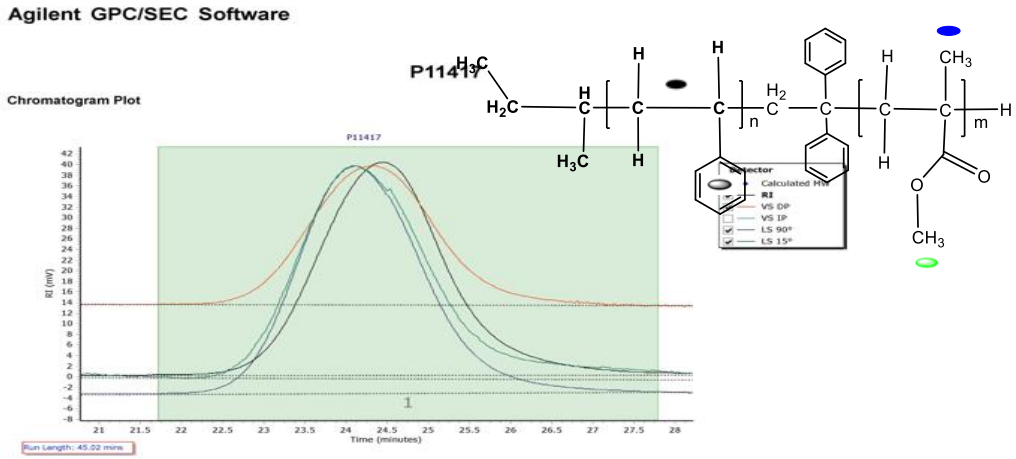
The polymer is synthesized by anionic polymerization process.
Solubility in different solvents:

THF	√	DMF	√
Alcohol	**X**	$CHCl_3$	√
Toluene	**Depends on composition**	Water	**X**

Validation of Architecture

A. <u>Gel Permeation Chromatography (GPC), SEC Profile:</u>

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



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	19179	18229	19286	20282	21253	20091	1.058

B. NMR (H^1NMR) of SMMA

SMMA sample was dissolved in $CDCl_3$. ^1H NMR spectra was determined using a 500 MHz. Bruker Avance III spectrometer.

