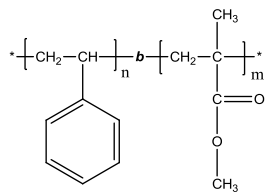


Sample Name: Poly (styrene-*b*-methyl methacrylate)
(PMMA block is predominantly syndiotactic, >78%)

Sample #: P40637-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
31.0-b-91.0	1.05

T _g for PS block:	103°C
T _g for PMMA block:	103°C

Synthesis procedure:

The polymer was synthesized by anionic polymerization.

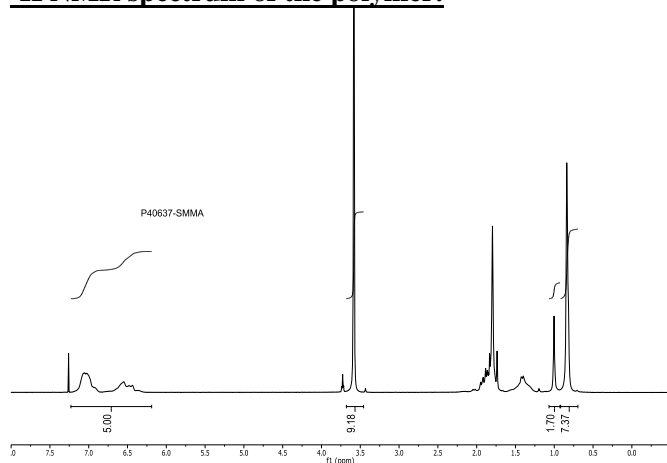
Characterization:

The molecular weight and polydispersity index of the polymer were determined by size exclusion chromatography (SEC). The ratio between blocks was calculated from ¹H NMR spectrum.

Solubility:

Poly(styrene-*b*-methyl methacrylate) is soluble in THF, toluene, dioxane, chloroform; and it precipitates from methanol, ethanol, hexanes, water.

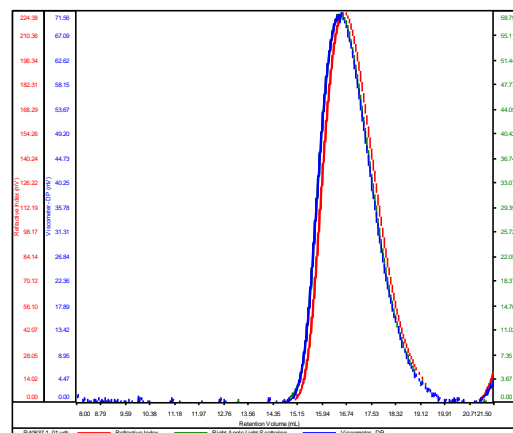
¹H NMR spectrum of the polymer:



SEC elugram of the Styrene block:

P40637-1-S

Conc	19.9764
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-May2017-0000.vcm

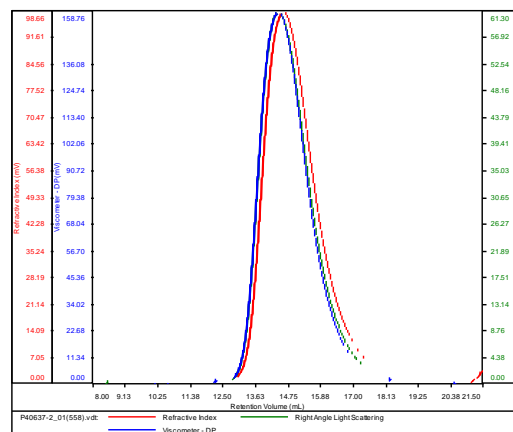


Sample	Mn	Mw	Mp	Mw/Mn	IV
_P40637-1_01.vdt	30,789	31,706	30,674	1.030	0.0797

SEC elugram of the polymer:

P40637-SMMA

Conc	15.6995
dn/dc	0.0970
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-May2017-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40637-2_01(558).vdt	121,566	126,601	126,479	1.041	1.0000

References:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.