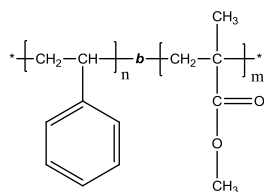


Sample Name: Poly (styrene-*b*-methyl methacrylate)
(PMMA block is predominantly syndiotactic, >78%)

Sample #: P40601-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
99.0-184.0	1.15

Synthesis procedure:

The polymer was synthesized by anionic polymerization.

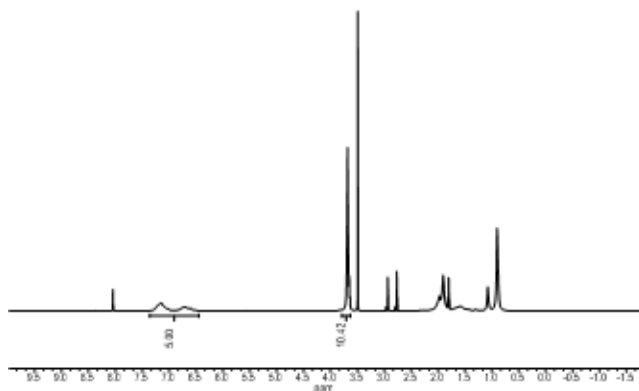
Characterization:

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.

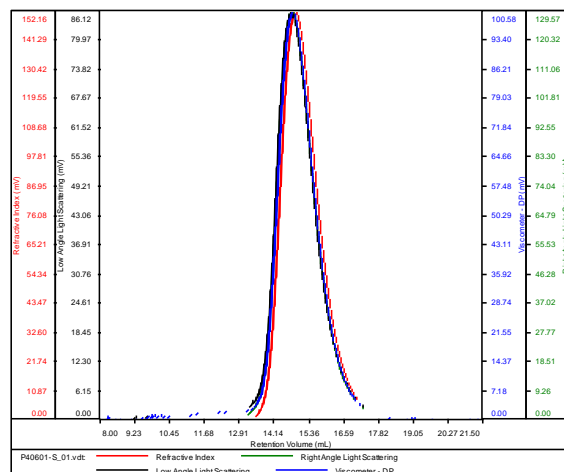
¹H NMR spectrum of the polymer:



SEC elugram of the Styrene block:

P40601-1

Conc	10.5458
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-May2017-0000.vcm

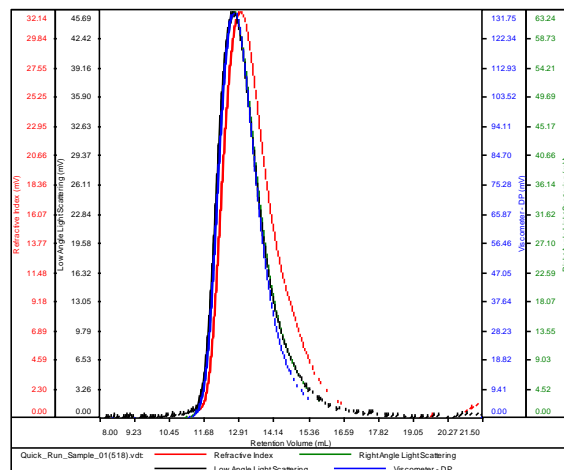


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40601-S_01.vdt	98,942	103,356	99,764	1.045	0.1656

SEC elugram of the Styrene block:

P40601-SMMA

Conc	4.4102
dn/dc	0.1100
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-May2017-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
Quick_Run_Sample_01(518).vdt	283,524	324,953	344,823	1.146	0.5606

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.