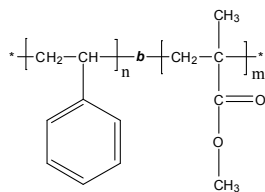


Sample Name: Poly (styrene-*b*-methyl methacrylate)
(PMMA block is predominantly syndiotactic, >78%)

Sample #: P40145-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
5.0-24.5	1.16
T _g for PS block:	103°C
T _g for PMMA block:	103°C

Synthesis procedure:

The polymer was synthesized by anionic polymerization.

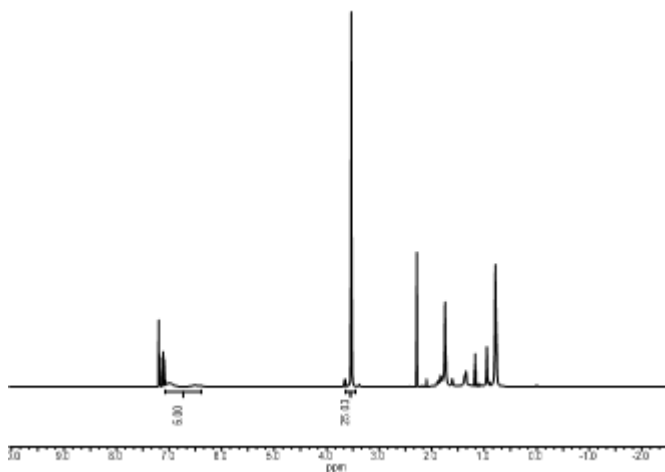
Characterization:

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. The product precipitates from methanol, ethanol, hexanes, and water.

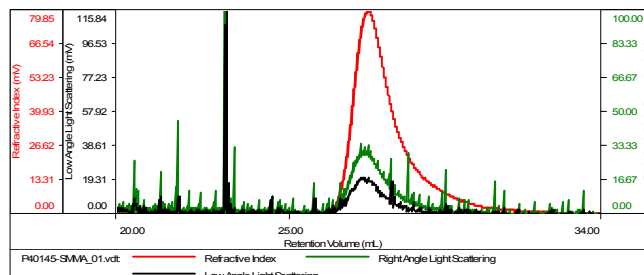
¹H NMR spectrum of the polymer:



SEC elugram of the Sample:

P40145-SMMA

Concentration (mg/mL)	2.3120
Sample dn/dc (mL/g)	0.1300
Method File	PS80K-Nb(2016-6-0000).vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mh (Da)	Mw (Da)	Mw/Mh	IV (dL/g)	Mp (Da)
P40145-SMMA_01.vdt	29,414	34,294	1.166	0.5934	36,159

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.