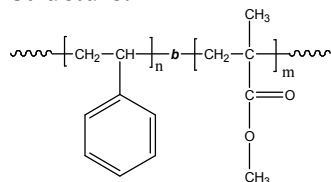


Sample Name: Poly (styrene-b-methyl methacrylate) (*polymethylmethacrylate rich in syndiotactic contents > 78%*)

Sample #: P19444-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
1,210.0-b-136.0	1.10
T _g for PS block: 107°C	T _g for PMMA block: 133°C

Synthesis Procedure:

By anionic polymerization

Characterization:

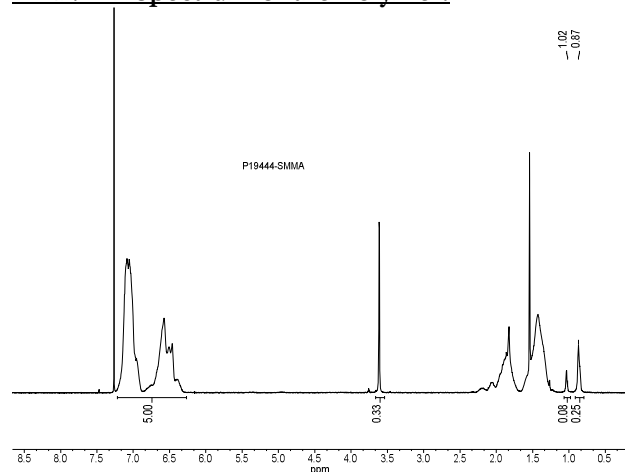
BY SEC and HNMR

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 15°C/min. The inflection glass transition temperature (T_g) of the sample has been considered.

Solubility:

Poly (styrene-b-methyl methacrylate) is soluble in THF, toluene, dioxane and CHCl₃. This polymer readily precipitates from methanol, ethanol, hexanes and water.

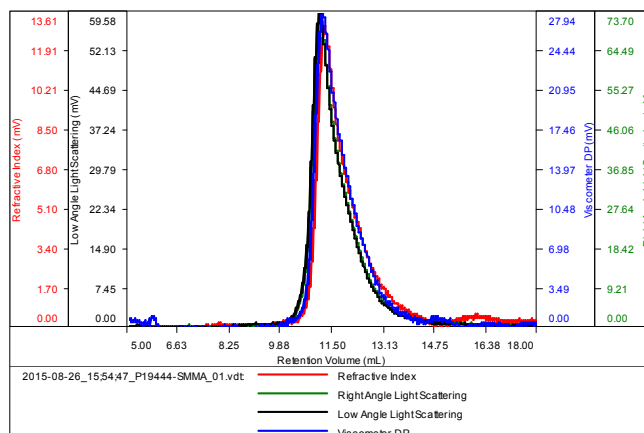
¹H-NMR Spectrum of the Polymer:



SEC of Sample: run in DMF

SAMPLE ID: P19444-SMMA

Conc (mg/ml)	0.3952
dn/dc (dl/g)	0.1200
Method	2015AUG-0001.vcm
Solvent	DMF w 0.03M LiBr
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
2015-08-26_15:54:47_P19444-SMMA	1.346 e 6	1.479 e 6	1.444 e 6	1.098	0.9523

References for further information:

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.
3. Ph. Teyssie, R. Fayt, J. P. Hautekeer, C. Jacobs, R. Jerome, L. Leemans and S. K. Varshney *Makromolekular Chemie, Macromol. Symp.*, 1990, 32,61-73.
4. S. K. Varshney, J. P. Hautekeer, R. Fayt, R. Jerome, and Ph.Teyssie *Macromolecules*, 1990, 23, 2618-2622.
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