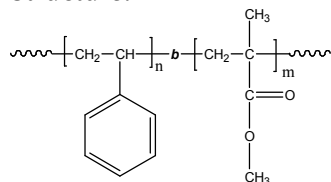


Sample Name: Poly (styrene-b-methyl methacrylate) (*polymethylmethacrylate rich in syndiotactic contents > 78%*)
Sample #: P19390-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
970.0-b-150.0	1.24
T _g for PS block: 107°C	T _g for PMMA block: 133°C

Synthesis Procedure:

By anionic polymerization

Characterization:

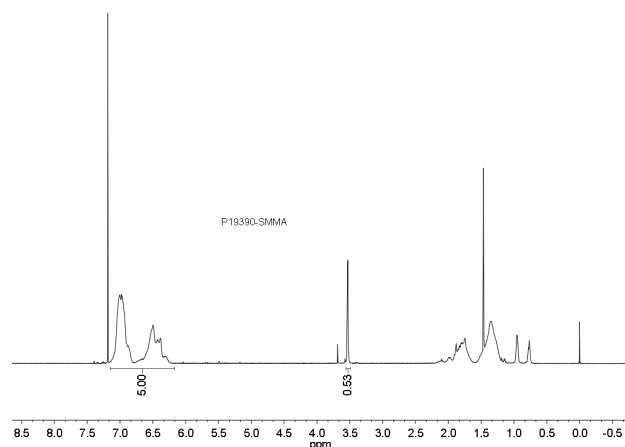
BY SEC and HNMR

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.

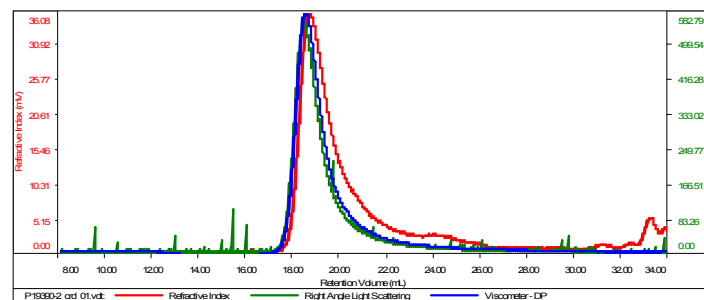
¹H-NMR Spectrum of the Polymer:



SEC of Sample:

Sample ID: P19390-SMMA

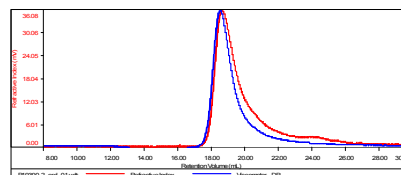
Concentration (mg/mL)	0.3470
Sample dn/dc (mL/g)	0.1860
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19390-2_ord_01.vcl	969,521	1.198 e 6	1.450 e 6	1.236	14.0383

Sample ID: P19390-SMMA

Concentration (mg/mL)	0.3062
Sample dn/dc (mL/g)	0.1600
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19390-2_ord_01.vcl	1.109 e 6	1.373 e 6	1.664 e 6	1.237	12.2500

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.
and A. Guyot Ed., NATO ASI Series C 215,101 (1987), CA Vol. 108, 12, 094992.