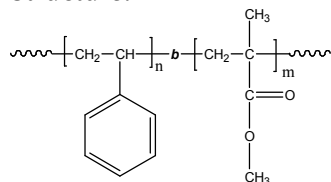


Sample Name: Poly (styrene-b-methyl methacrylate) (*polymethylmethacrylate rich in syndiotactic contents > 78%*)  
Sample #: P19368-SMMA

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> S-b-MMA	PDI
422.5-b-390.0	1.10
T <sub>g</sub> for PS block: 107°C	T <sub>g</sub> for PS block: 133°C

**Synthesis Procedure:**

By anionic polymerization

**Characterization:**

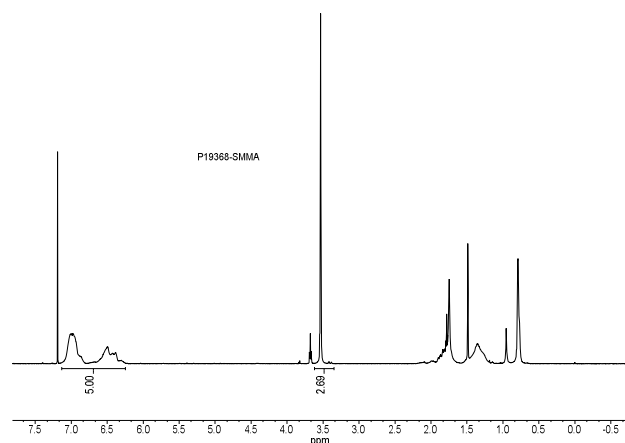
BY SEC and HNMR

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<sub>g</sub>) of the sample has been considered.

**Solubility:**

Poly (styrene-b-methyl methacrylate) is soluble in THF, toluene, dioxane and CHCl<sub>3</sub>. This polymer readily precipitates from methanol, ethanol, hexanes and water.

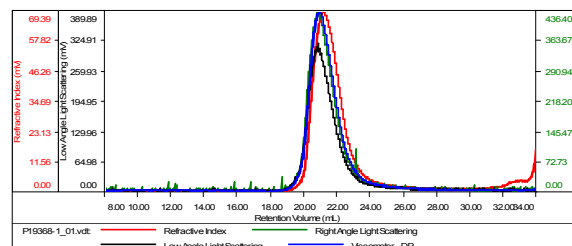
**<sup>1</sup>H-NMR Spectrum of the Polymer:**



**SEC of Sample:**

**Sample ID:**P19368-1

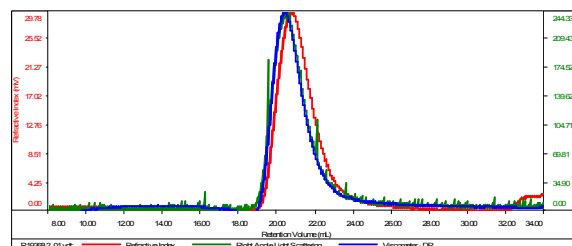
Concentration (mg/mL)	0.7000
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19368-1_01.vdt	422,638	461,974	457,877	1.093	6.5029

**Sample ID:**P19368-SMMA

Concentration (mg/mL)	0.4475
Sample dn/dc (mL/g)	0.1390
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)
P19368-2_01.vdt	815,465	897,402	838,807	1.100	8.5716

**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.