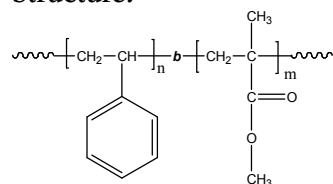


Sample Name: Poly (styrene-b-methyl methacrylate) (*polymethylmethacrylate rich in syndiotactic contents > 78%*)
Sample #: P19366-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
524.0-b-382.0	1.17
T _g for PS block: 107°C	T _g for PS block: 133°C

Synthesis Procedure:

By anionic polymerization

Characterization:

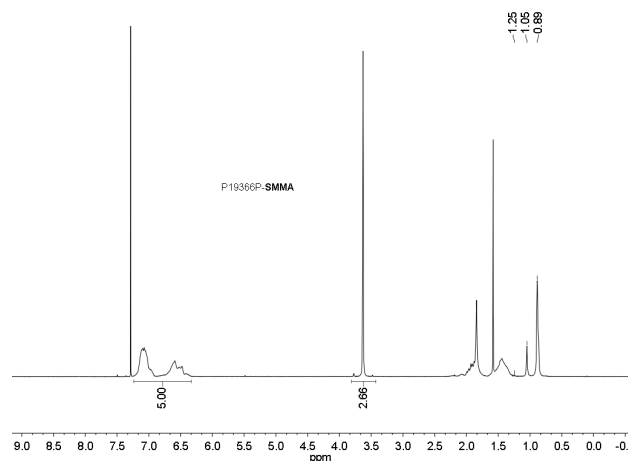
BY SEC and HNMR

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_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.

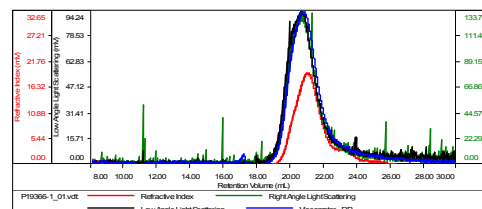
¹H-NMR Spectrum of the Polymer:



SEC of Sample:

Sample ID: P19366-S

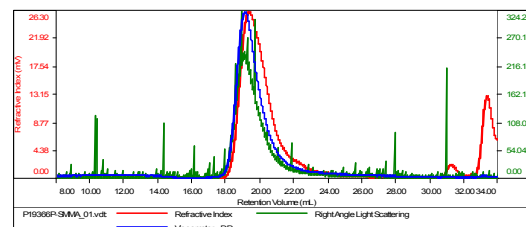
Concentration (mg/mL)	0.1746
Sample chrc (mL/g)	0.1850
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19366-1_01.vcl	523,950	592,563	491,538	1.131	7.6933

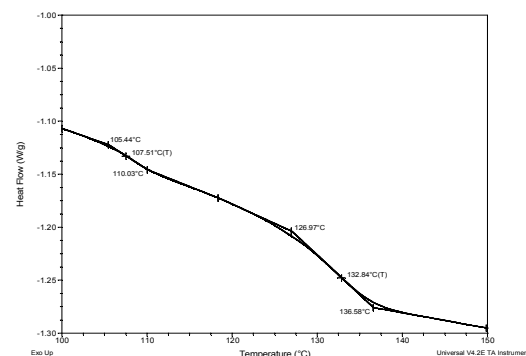
Sample ID: P19366P-SMMA

Concentration (mg/mL)	0.3783
Sample chrc (mL/g)	0.1250
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)
P19366P-SMMA_01.vcl	903,295	1.061 e 6	1.135 e 6	1.175	8.4385

Thermogram of the sample:



References for further information:

- S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
- 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.