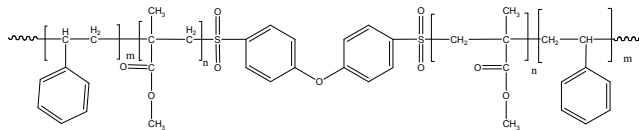


Sample Name:**Poly(Styrene-b-methyl methacrylate-b-Styrene)****(radical process) PMMA : atactic rich**

Sample #: P10060-SMMAS

Structure:**Composition:**

$M_n \times 10^3$ (S-b-MMA-S)	PDI
1.5-b-42.0-b-1.5	1.19
Microstructure of PMMA block	S:H:I contents 55:37:8
T_g for PS block: Not distinct	T_g for MMA block: 110 $^{\circ}\text{C}$

Synthesis Procedure:

Poly(styrene-b-methylmethacrylate-b-styrene) is prepared by controlled process.

Characterization:

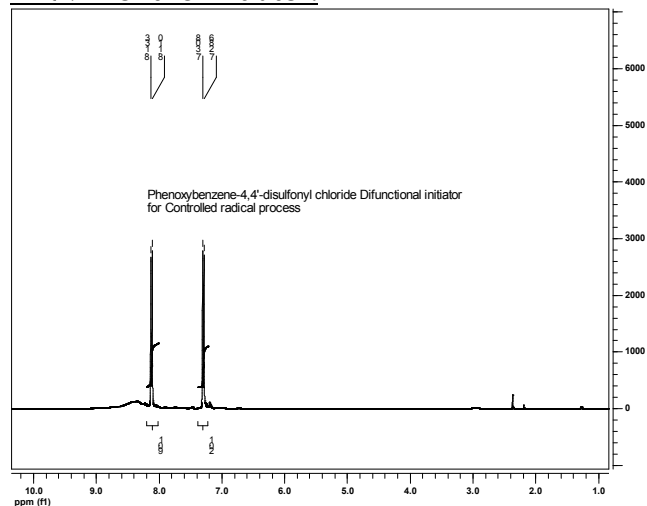
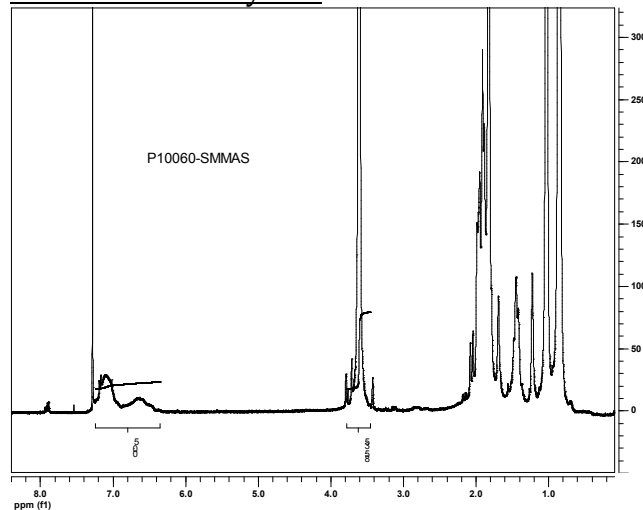
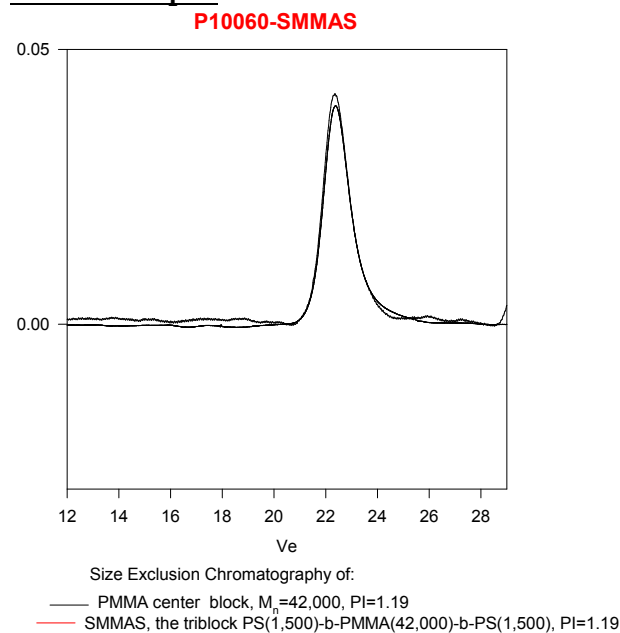
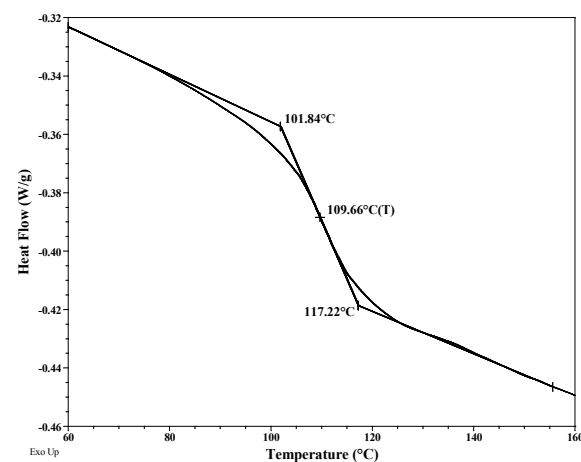
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}\text{C}/\text{min}$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in THF, toluene and CHCl_3 . It precipitates from methanol, ethanol, water and hexanes.

HNMR of the initiator:**HNMR of the Polymer:****SEC of Sample:****DSC thermogram for MMA block:****Reference:**

S.K. Varshney, P. Kesani, N. Agarwal, J. Xin. Zhang, and M. Rafailovich. Synthesis of ABA type thermoplastic elastomers based on Polyacrylates, *Macromolecules*, 1999, 32, 235.