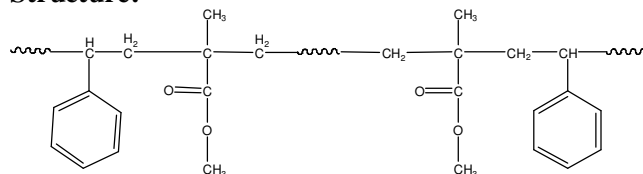


Sample Name:**Poly(Styrene-*b*-Methyl Methacrylate-*b*-Styrene)****Sample #: P10051A-SMMAS****Structure:****Composition:**

$M_n \times 10^3$ (S- <i>b</i> -MMA-S)	PDI
3.5- <i>b</i> -145.0- <i>b</i> -3.5	1.28

Microstructure of PMMA block:	Syndio:Hetero:Isotactic 78:10:2
T _g for MMA block:	113°C
T _g for PS block:	Not distinct

Synthesis Procedure:

Poly(styrene-*b*-methylmethacrylate-*b*-styrene) was prepared by living anionic polymerization. The details are reported in the reference¹.

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:

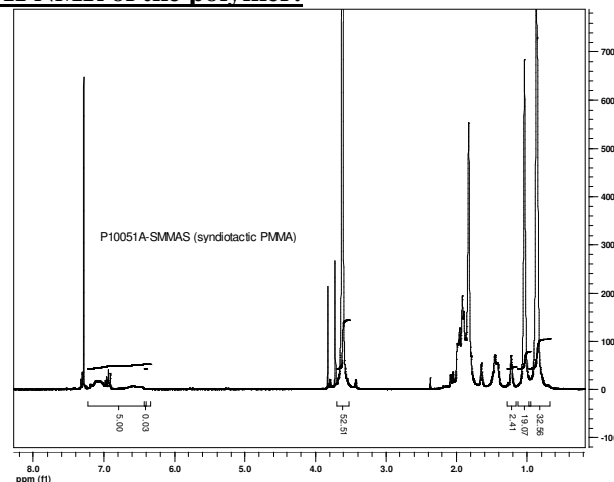
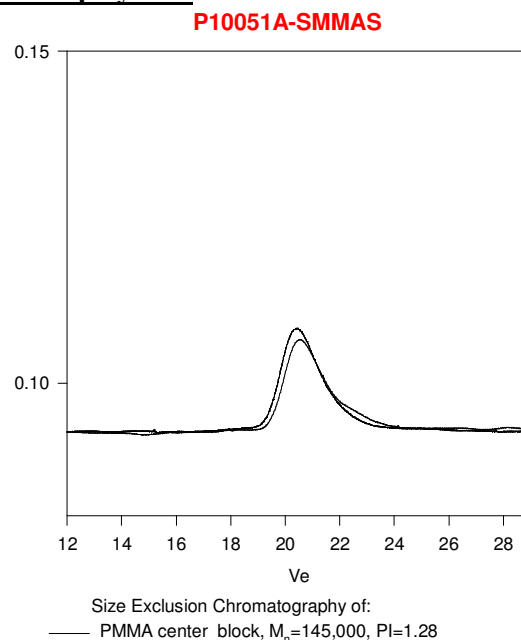
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

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.

¹H NMR of the polymer:**SEC of the polymer:****DSC thermogram for MMA block:**