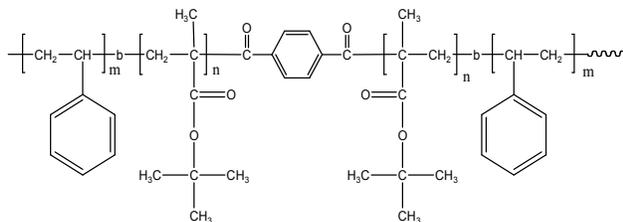


Sample Name:

Poly(Styrene-b-tert butyl methacrylate-b-Styrene)

Sample #: P10039-StBuMAS

Structure:

**Composition:**

$M_n \times 10^3$ (S-b-tBuMA-S)	PDI
8.0-b-52.0-b-8.0	1.4
T_g for PS block: 77°C	T_g for tBuMA block: 112°C

Synthesis Procedure:

Poly(styrene -b- tert.butylmethacrylate -b- styrene) is prepared by living anionic polymerization. The synthesis details are available in the cited reference at the end.

Characterization:

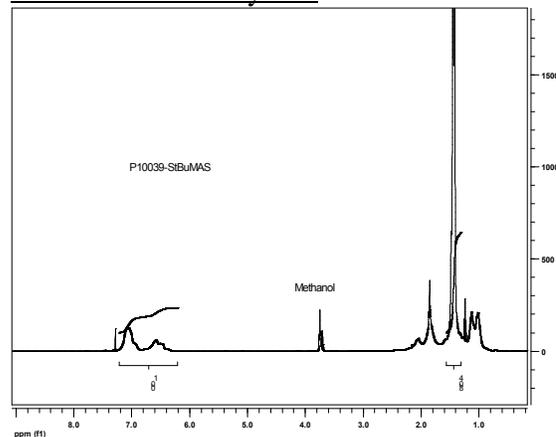
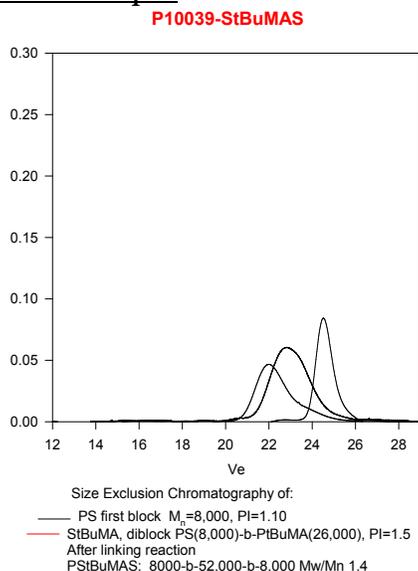
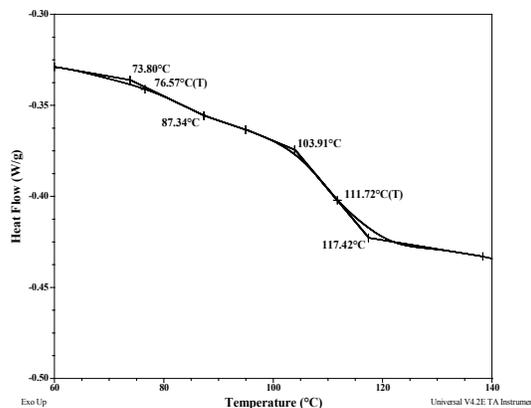
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

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 $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes (depending on the composition).

 1H NMR of the Polymer:**SEC of Sample:****DDSC thermogram for the triblock polymer:****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.