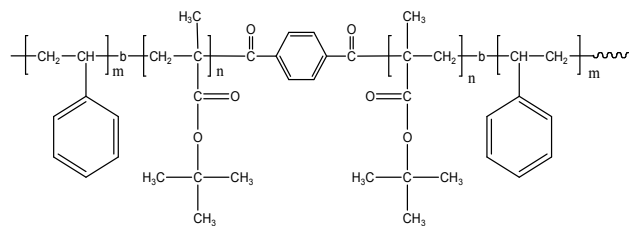


**Sample Name:**

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

**Sample #: P11160-StBuMAS**

**Structure:**

**Composition:**

$M_n \times 10^3$ (S-b-tBuMA-S)	PDI
80.0-120.0-b-80.0	1.18
$T_g$ for PS block ( $^{\circ}\text{C}$ ):	105
$T_g$ for PtBuMA block ( $^{\circ}\text{C}$ ):	125

**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:**

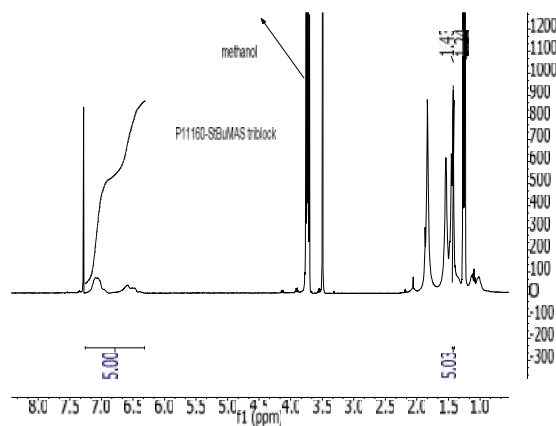
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

**Thermal Analysis:**

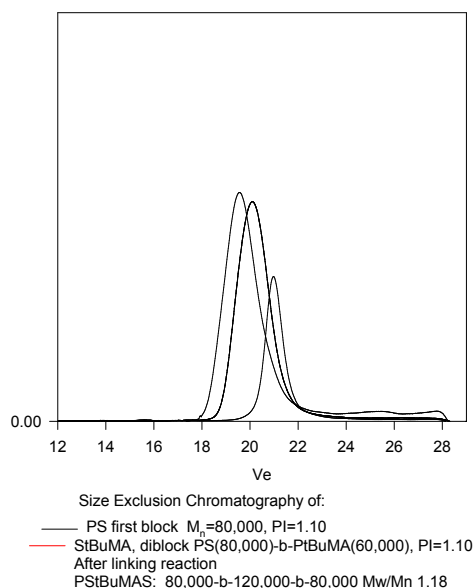
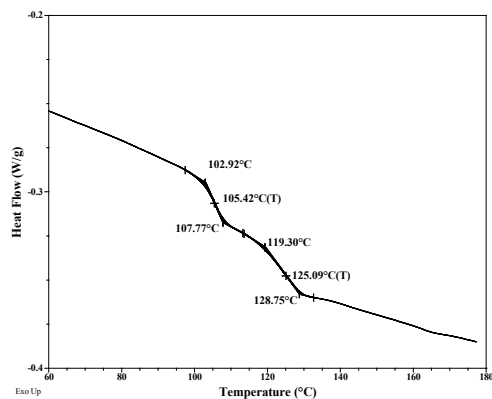
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of  $10^{\circ}\text{C}/\text{min}$ . The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature ( $T_g$ ).

**Solubility:**

Polymer is soluble in THF, toluene and  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes (depending on the composition).

 **$^1\text{H}$  NMR of the Polymer:****SEC of Sample:**

**P11160-StBuMAS**

**DSC of Sample****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.