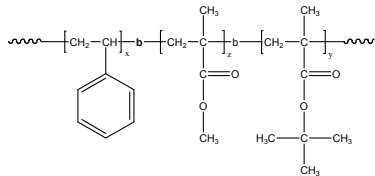


Sample Name:
**Poly (styrene-*b*-methylmethacrylate-*b*-
tert.butylmethacrylate)**

Sample #: **P40160-SMMA**t**BuMA**

Structure:



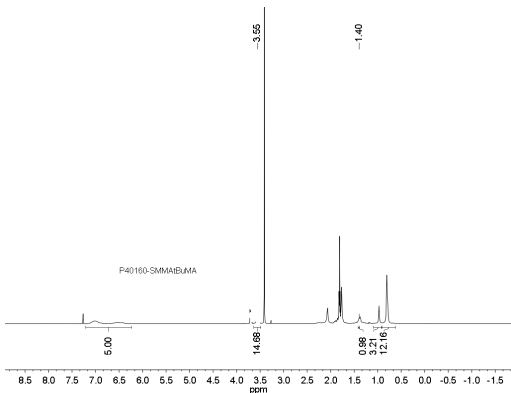
Composition:

| | |
|------------------------------------|-------|
| Mn x 10 ³ | PDI |
| S- <i>b</i> -MMA- <i>b</i> -tBuMA | |
| 4.0- <i>b</i> -23.0- <i>b</i> -1.0 | 1.05 |
| T _g of MMA block: | 129°C |

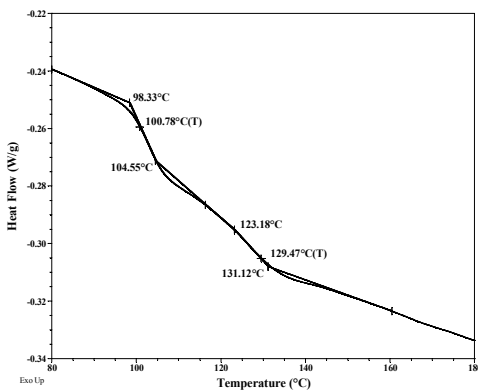
Synthesis:

The polymer was synthesized by living anionic polymerization with sequence addition of styrene, methyl methacrylate, and tert-butylmethacrylate.

¹H NMR (500 MHz, CDCl₃) of the polymer:



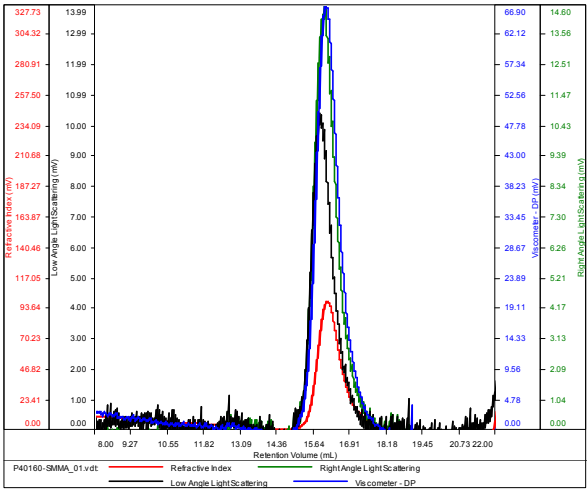
DSC thermogram for PS and MMA blocks:



**SEC elugrams (PS, PS-PMMA, PS-PMMA-
PtBuMA):**

P40160-SMMA

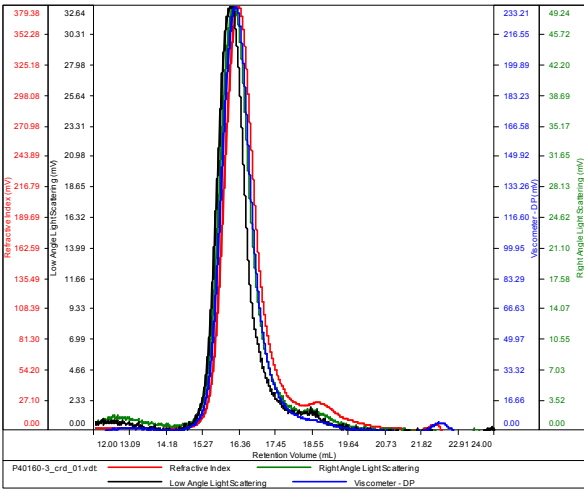
| | |
|--------------|------------------------------|
| Conc (mg/mL) | 5.1312 |
| dn/dc (mL/g) | 0.1100 |
| Method | PS80k_December-2016-0004.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|--------------------|--------|--------|--------|-------|--------|
| P40160-SMMA_01.vdt | 27,559 | 29,504 | 28,201 | 1.071 | 0.2770 |

P40160-SMMA**t**BuMA

| | |
|--------------|------------------------------|
| Conc (mg/mL) | 25.3598 |
| dn/dc (mL/g) | 0.1000 |
| Method | PS80k_December-2016-0004.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|---------------------|--------|--------|--------|-------|--------|
| P40160-3_crd_01.vdt | 27,739 | 29,150 | 27,969 | 1.051 | 0.2180 |