

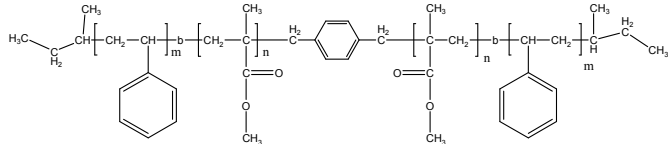
Sample Name:

Poly (Styrene-b-methyl methacrylate-b-Styrene)

Sample #: **P40169-SMMAS**

By anionic process

Structure:

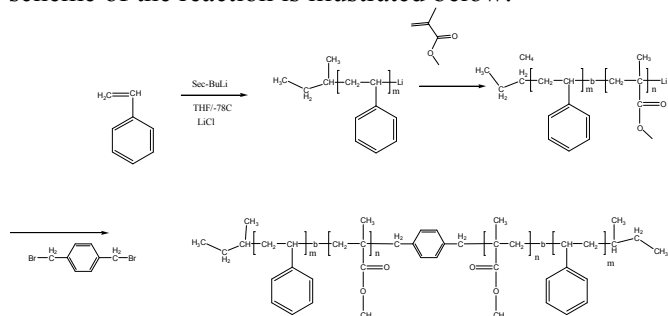


Composition:

| | |
|----------------------------------|-------------------------------------|
| $M_n \times 10^3$ (S-b-MMA-S) | PDI |
| 6.0-b-114.0-b-6.0 | 1.07 |
| T_g for MMA block: 113°C | T_g for PS block: Not distinct |

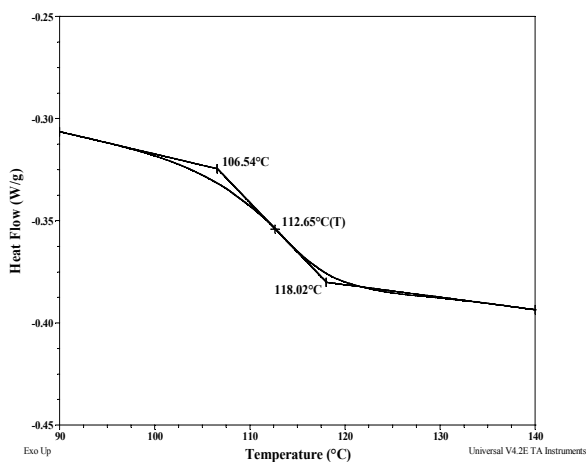
Synthesis Procedure:

The polymer was synthesized by anionic process. The scheme of the reaction is illustrated below:



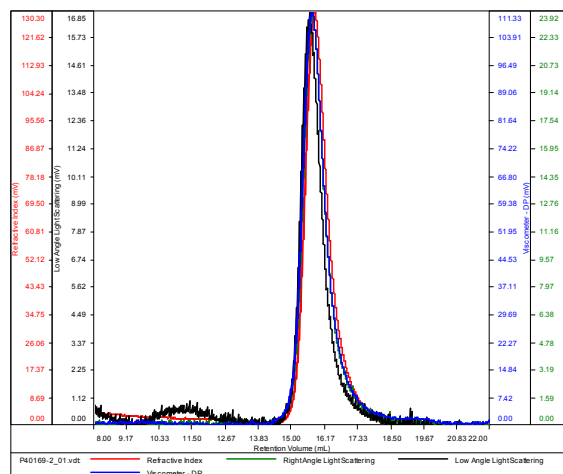
Characterization:

The polymer was characterized by ^1H NMR, SEC and DSC.



P40169-SMMA Before linking

| | |
|--------------|----------------------------|
| Conc (mg/mL) | 4.8631 |
| dn/dc (mL/g) | 0.0700 |
| Method | PS80k-October2016-0000.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |

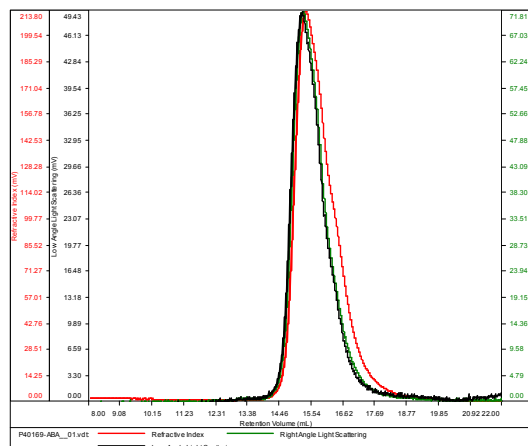


| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-----------------|--------|--------|--------|-------|--------|
| P40169-2_01.vdt | 65,534 | 70,977 | 65,111 | 1.083 | 0.5380 |

SEC elugram of the Styrene:

P40169-SMMAS

| | |
|--------------|----------------------------|
| Conc (mg/mL) | 9.1623 |
| dn/dc (mL/g) | 0.0700 |
| Method | PS80k-October2016-0000.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-------------------|---------|---------|---------|-------|--------|
| P40169-ABA_01.vdt | 125,153 | 133,524 | 134,813 | 1.067 | 0.7782 |

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.