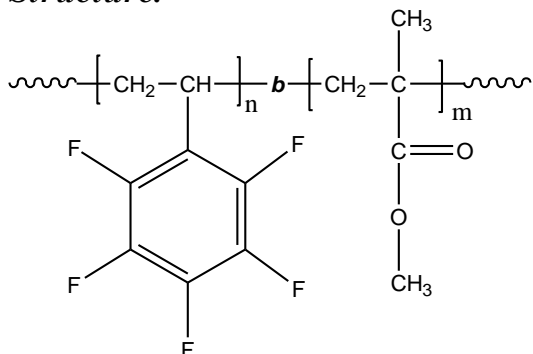


**Sample Name: Poly(pentafluorostyrene-b-methyl methacrylate)**  
*(polymethylmethacrylate rich in atactic contents)*

**Sample #: P14040-5FSMMA**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> 5FS-b-MMA	PDI
18.0-b-15.0	1.3
T <sub>g</sub> for 5FSS block: 71 °C	T <sub>g</sub> for PMMA block: Not distinct

**Synthesis Procedure:**

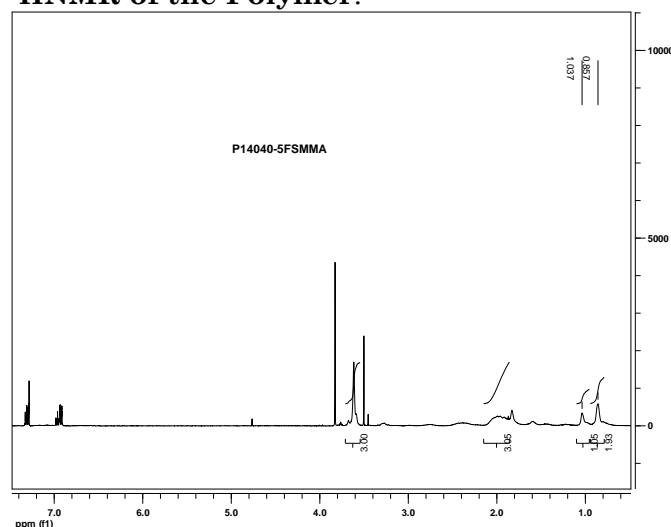
Polymer prepared by controlled radical process.

**Characterization:**

Polymer analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy.

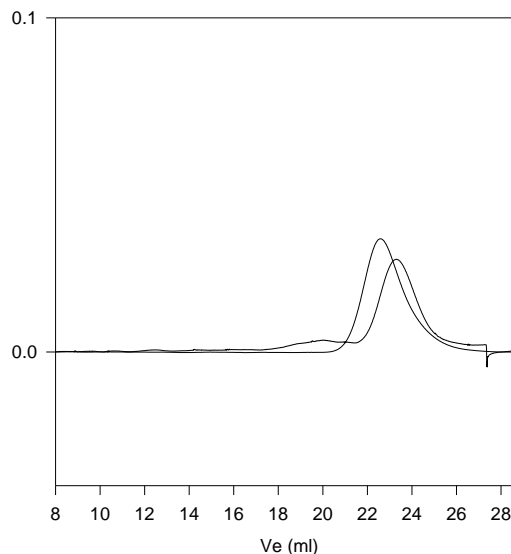
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T<sub>g</sub>) of the sample has been considered.

**<sup>1</sup>H-NMR of the Polymer:**



**SEC of Sample**

**P14040- 5FSMMA**

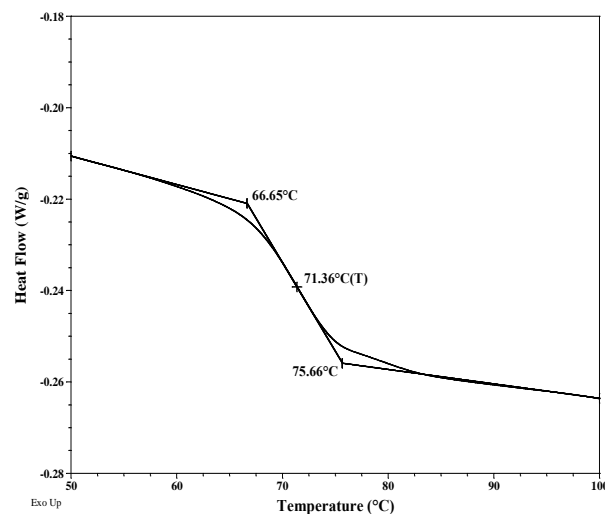


Size exclusion chromatography of polymer

— 5FS: M<sub>n</sub>=18,000, M<sub>w</sub>=23,500, Mw/Mn=1.3

5FS-b-MMA: Mn 18,000-b-15,000:Mw/Mn 1.3

**Thermogram for the sample**



**References for further information:**

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.
3. Ph. Teyssie, R. Fayt, J. P. Hautekeer, C. Jacobs, R. Jerome, L. Leemans and S. K. Varshney *Makromolekulare Chemie, Macromol. Symp.*, 1990, 32,61-73.
4. S. K. Varshney, J. P. Hautekeer, R. Fayt, R. Jerome, and Ph.Teyssie *Macromolecules*, 1990, 23, 2618-2622.