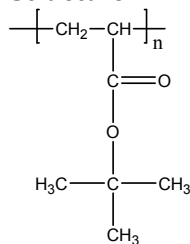


**Sample Name:** Poly(t-butyl acrylate)

**Sample #:** P10533-tBuA

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
235.0	1.7

**Synthesis Procedure:**

Poly(t-butyl acrylate) is obtained by anionic process.

**Characterization:**

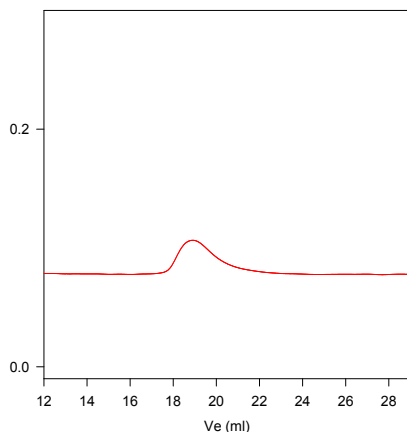
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**Solubility:**

Poly(t-butyl acrylate) is soluble in THF, hexanes (low MW), toluene and CHCl<sub>3</sub>. This polymer precipitates from ethanol and methanol containing 10-15% water.

**SEC of Sample:**

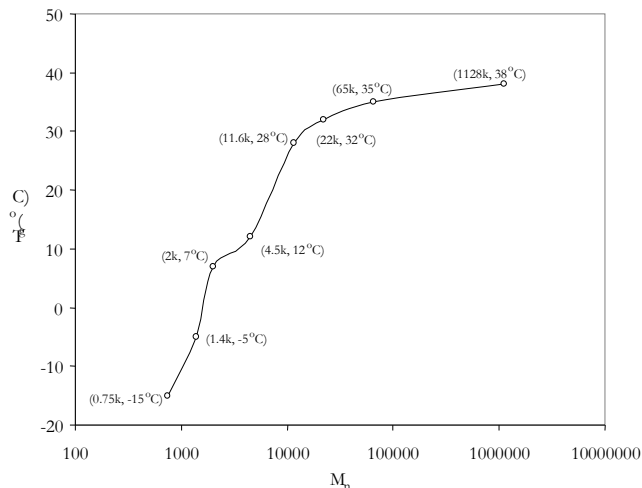
P10533-tBuA



Size Exclusion Chromatography of Monohydroxy in THF

M<sub>n</sub> = 235,000 M<sub>w</sub> = 400,000, PI = 1.7

Tg of poly t-butyl acrylate as function of molecular weight



**References:**

1. 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.
2. R. Fayt, R. Forte, C. Jacobs, R. Jerome, T. Ouhadi, Ph. Teyssie and **S. K. Varshney**, *Macromolecules*, 1987, 20, 1442-1444.
3. Jerome, R. Forte, **S. K. Varshney**, R. Fayt, and Ph. Teyssie, "The Anionic Polymerization of Alkylacrylates: A Challenge" in the Recent Advances in Mechanistic and Synthetic Aspects of Polymerization: M. Fontanille and A. Guyot Ed., NATO ASI Series C 215, 101 (1987), CA Vol. 108, 12, 094992.
4. Ph. Teyssie, R. Fayt, C. Jacobs, R. Jerome, L. Leemans, and **S. K. Varshney** *Am. Chem. Soc., Polym. Prepr.* 1988, 28, 2, 52-53