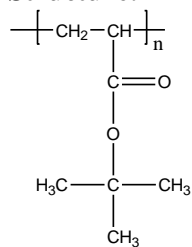


Sample Name: Poly (t-butyl acrylate)

Sample #: P41103-tBuA

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
291.0	1.5

**Synthesis Procedure:**

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

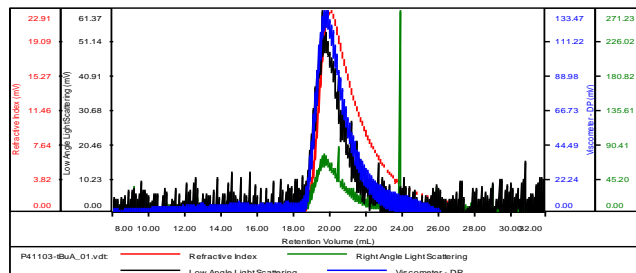
**Solubility:**

Poly(t-butyl acrylate) is soluble in THF, DMF and  $CHCl_3$ .

**SEC elugram of the Sample:**

**P41103-tBuA**

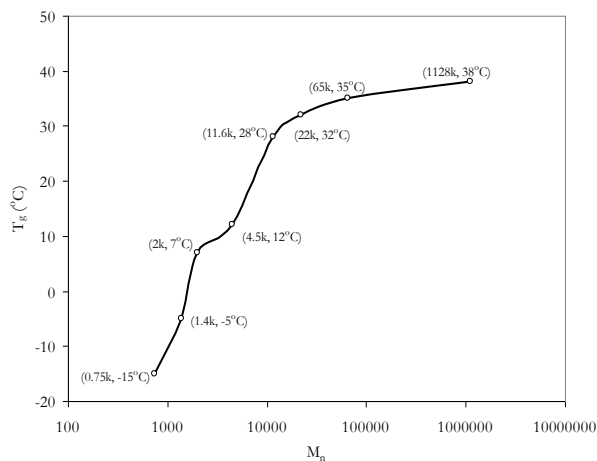
Concentration (mg/mL)	3.2920
Sample dn/dc (mL/g)	0.0840
Method File	PS105K-April16-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	$M_n$ (Da)	$M_w$ (Da)	$M_w/M_n$	IV (dL/g)	$M_p$ (Da)
P41103-tBuA_01.vt	291,233	445,975	1.531	2.7958	540,051

**DSC Thermogram of tBuA:**

T<sub>g</sub> 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