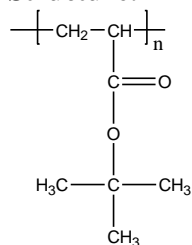


Sample Name: Poly (t-butyl acrylate)

Sample #: P10532A-tBuA

Structure:



Composition:

Mn x 10 ³	PDI
143.0	1.08

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.

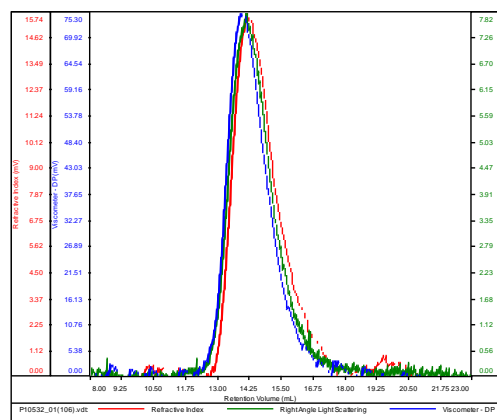
Solubility:

Poly(t-butyl acrylate) is soluble in THF, hexanes (low MW), toluene and CHCl₃. This polymer precipitates from ethanol and methanol containing 10-15% water.

SEC elugram of the Sample:

P10532A-tBuA

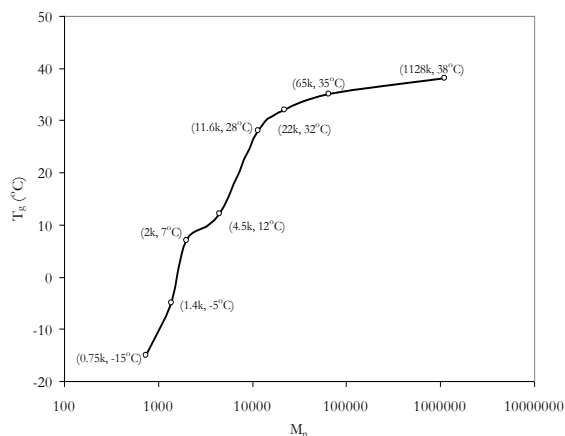
Conc	2.0556
divdc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80K-04Dec2017-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P10532_01(106).vdt	143,240	148,758	153,688	1.039	0.7747

Thermogram:

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



References:

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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