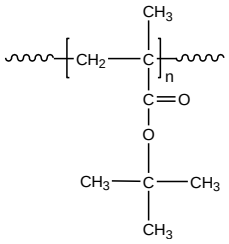
Sample Name: **Poly(t-butyl methacrylate)**
Isotactic microstructure

Sample #: **P40481A-tBuMA**

Structure:



Composition:

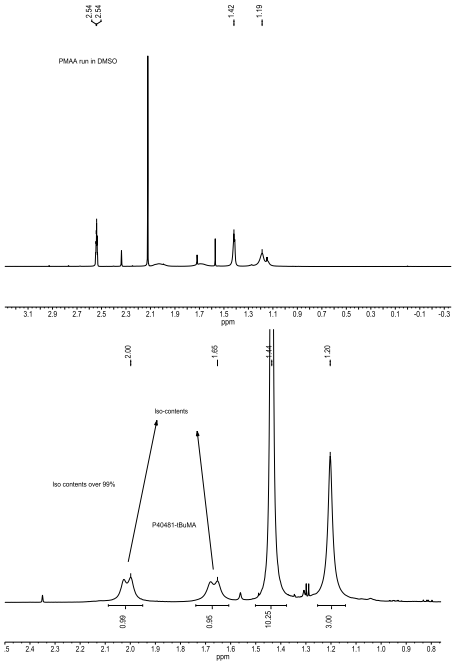
Mn x 10^3	PDI
198	1.3

Synthesis Procedure:
Poly(t-butyl methacrylate) is obtained by living anionic polymerization of t-butyl methacrylate.

Characterization:
The product was characterized by size exclusion chromatography (SEC) and ^{1}H NMR.

Solubility:
Poly(tert butylmethacrylate) is soluble in THF, CHCl3. The polymer is insoluble in DMF however syndio and atactic polymers are soluble in DMF.

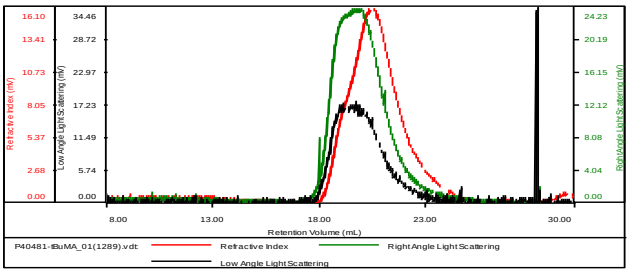
^{1}HNMR spectrum of the sample:



SEC of Homopolymer:

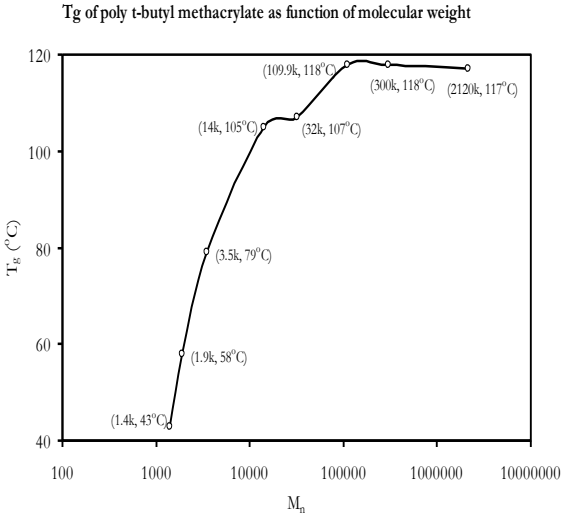
P40481-tBuMA Isotactic

Concentration (mg/mL)	0.8752
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-Feb2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40481-tBuMA_01(128	198,350	266,273	1.342	2.2122	216,664

DSC thermogram of the Product:



T_g vs MW for selected poly t-butyl methacrylate

$M_n \times 10^3$	T_g (^{o}C)	$M_n \times 10^3$	T_g (^{o}C)
1.4	43	32	107
1.9	58	109.9	118
3.5	79	300	118
14	105	2120	117

References for further information:

S. K. Varshney, Z. Gao, Xing Fu Zhong, A. Eisenberg
"Effect of Lithium Chloride on the "Living" Polymerization of tert-Butylmethacrylate and Polymer Microstructure Using Monofunctional Initiators" Macromolecules, 1994, 27, 1076.