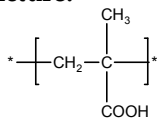


**Sample Name:**

Poly(methacrylic acid) rich in Atactic contents

**Sample #:** P10752-MAA**Structure:****Composition:**

Mn x 10 <sup>3</sup>	PDI
373.0	1.18
T <sub>g</sub> (°C)	165
Microstructure Syndio:Heter:iso contents	40:49:11

**Synthesis Procedure:**

Poly(methacrylic ) is synthesized by RAFT process

**Characterization:**

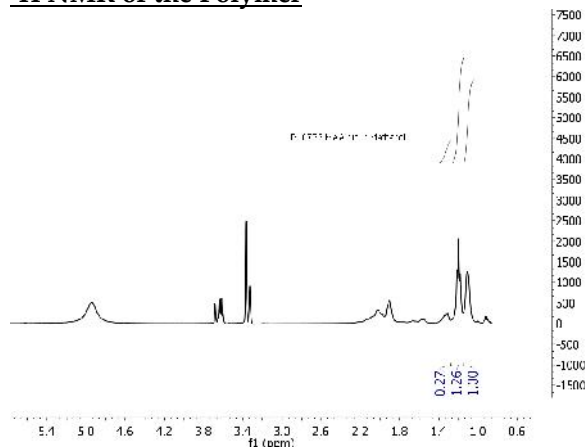
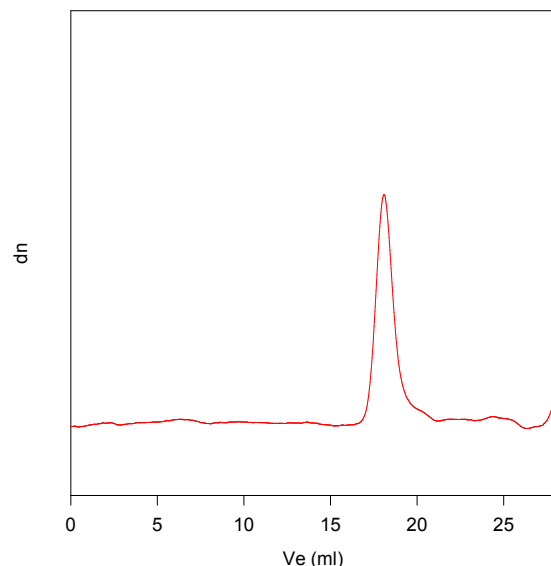
The molecular weight and polydispersity index (PDI) of Poly(methacrylic) are obtained by size exclusion chromatography in DMF at 45 °C.

**Thermal analysis:**

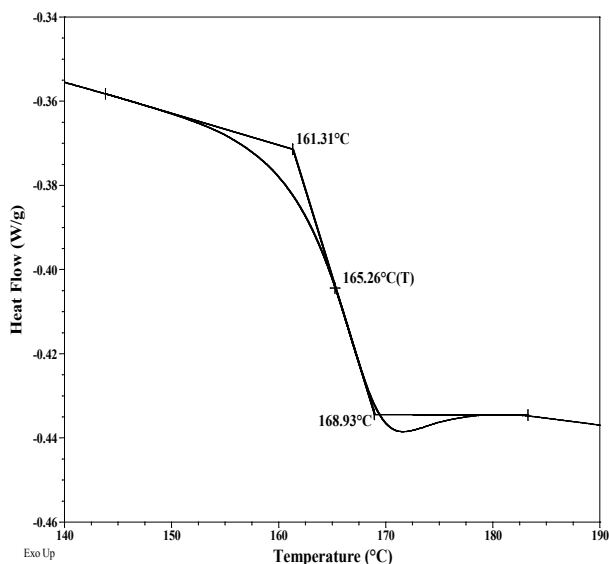
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10 °C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

**Solubility:**

Polymer is soluble in methanol and ethanol.

**<sup>1</sup>H NMR of the Polymer****SEC of the homopolymer:****P10752-MAA**

Size Exclusion Chromatography of polymer in DMF at 45 °C.

M<sub>n</sub>=373,000, M<sub>w</sub>=440,000, PI=1.18**Thermogram for the polymer:****References:**

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.