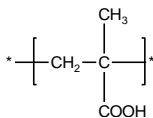


Sample Name:

Poly(methacrylic acid) Syndiotactic

Sample #: P10802-MAA

From hydrolysis of syndiotactic Poly tBuMA polymer

Structure:**Composition:**

$M_n \times 10^3$	PDI
260.0	1.10
T_g (°C)	165
Microstructure Syndio:Heter:iso contents	40:49:11

Synthesis Procedure:

Poly(methacrylic) is synthesized by RAFT process

Characterization:

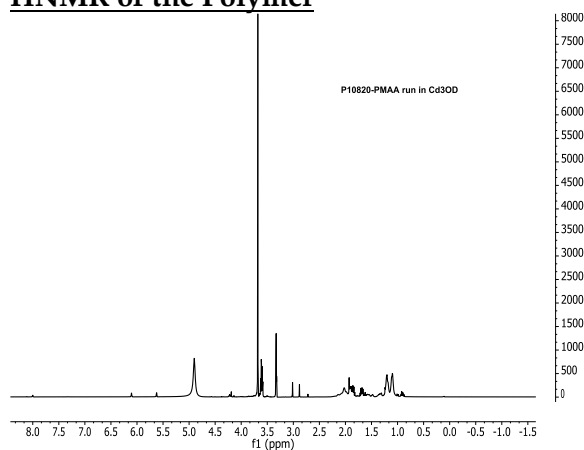
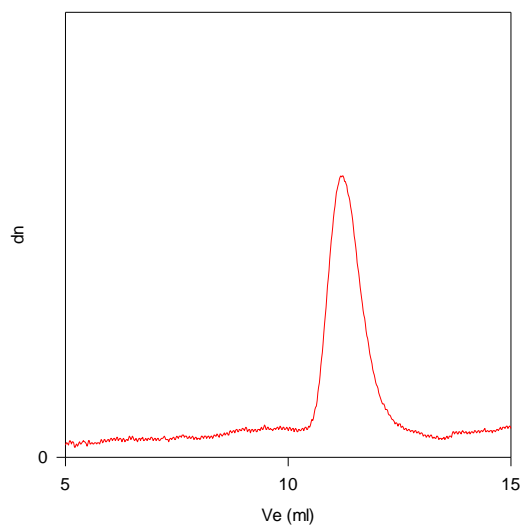
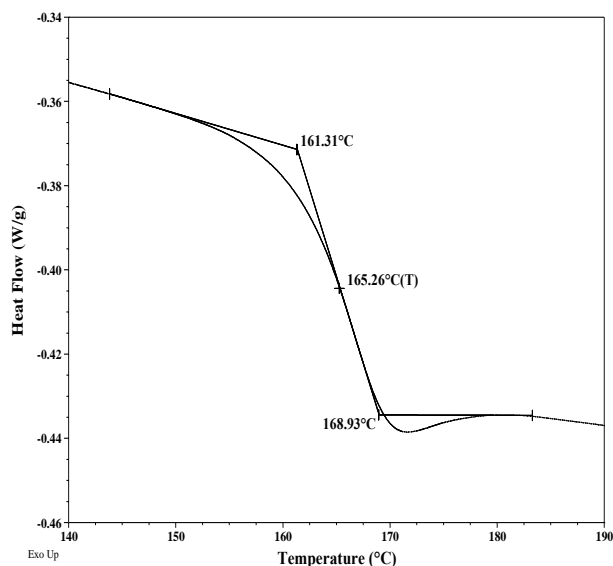
The molecular weight and polydispersity index (PDI) of Poly(methacrylic) are obtained by size exclusion chromatography in DMF at 45 °C.

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_g).

Solubility:

Polymer is soluble in methanol and ethanol.

HNMR of the Polymer**SEC of the homopolymer:****P10802-MAA** $M_n=260,000$, $M_w=286,000$, $PI=1.10$ **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.