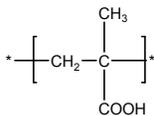


Sample Name:

Poly(methacrylic acid) rich in Atactic contents

Sample #: P10825-MAA
(rich in atactic)

Structure:



Composition:

| | |
|--|----------|
| Mn x 10 ³ | PDI |
| 270.0 | 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.

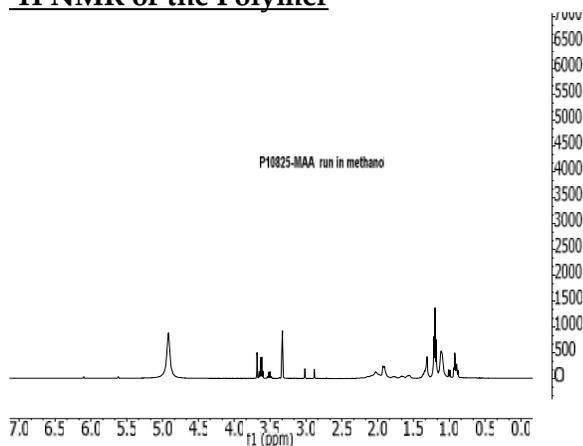
Thermal analysis:

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).

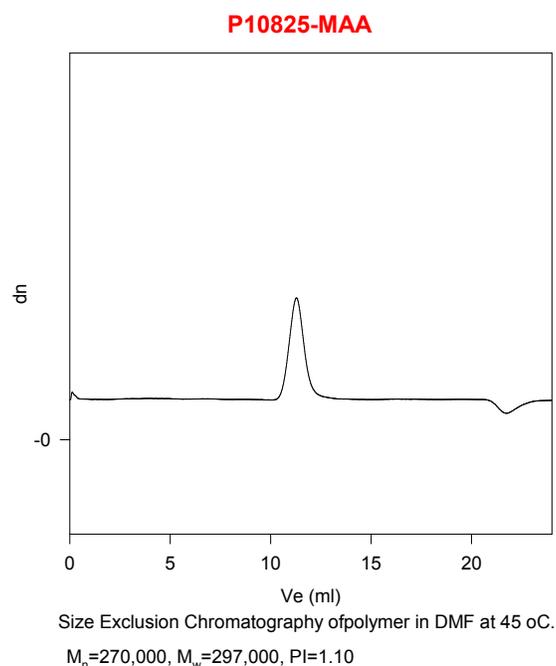
Solubility:

Polymer is soluble in methanol and ethanol.

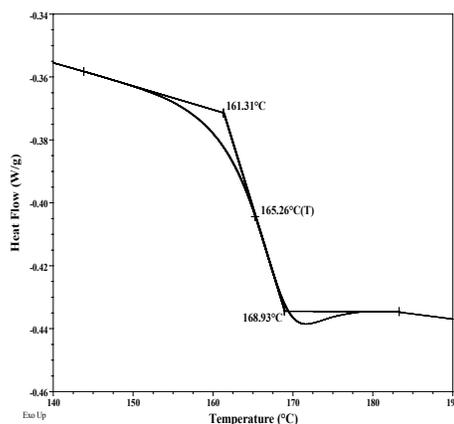
¹H NMR of the Polymer



SEC of the homopolymer:



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.