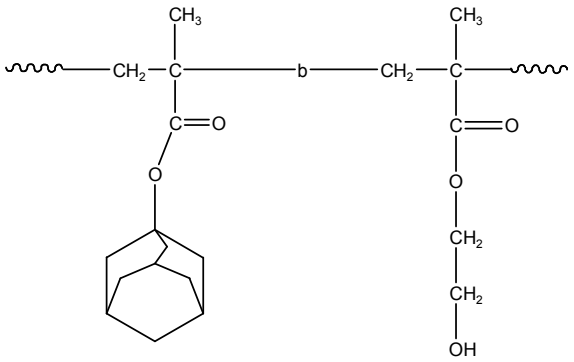
Sample Name:
Poly(1-Adamantyl methacrylate-b-2-hydroxyethyl methacrylate)
Sample #: P9386-ADMMAHEMA
Structure:



Composition:

Mn x 10^3 ADMMA-b-PHEMA	PDI
3.0-b-2.5	1.13
Microstructure of PADMMA block	Syndio:hetero:iso rich in atactic > 70%
T_g for ADMA block:152°C	T_g for HEMA block: Not distinct

Synthesis Procedure: ***Prepared by anionic process*** using HEMA-TMS monomer than deprotecting OH group of HEMA.

Characterization:

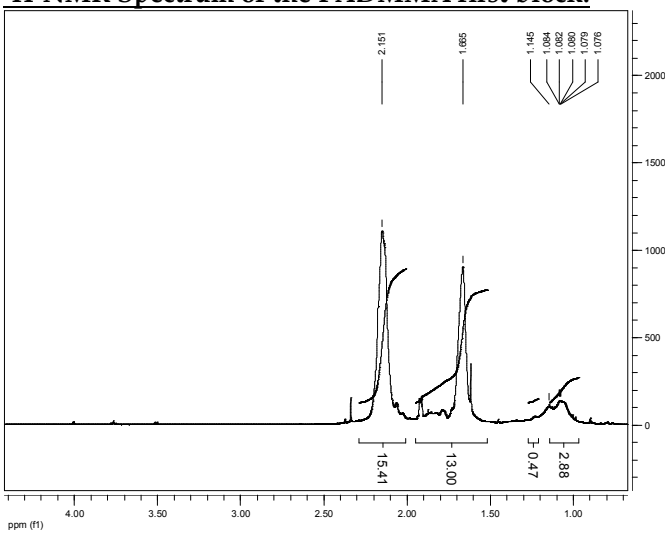
An aliquot of the anionic poly(ADMA) block was terminated before addition of MMA monomer and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ^{1}H-NMR spectroscopy.

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min.The inflection glass transition temperature (T_g) of the sample has been considered.

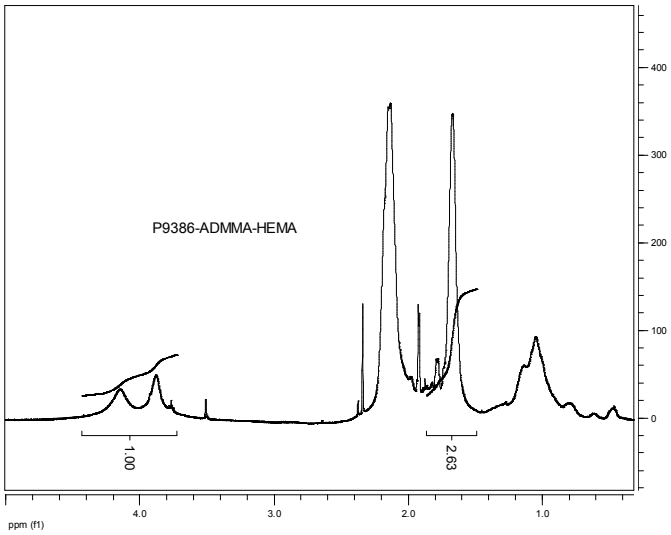
Solubility:

Polymer is soluble in THF, DMF. The polymer precipitates from hexanes, methanol and ethanol.

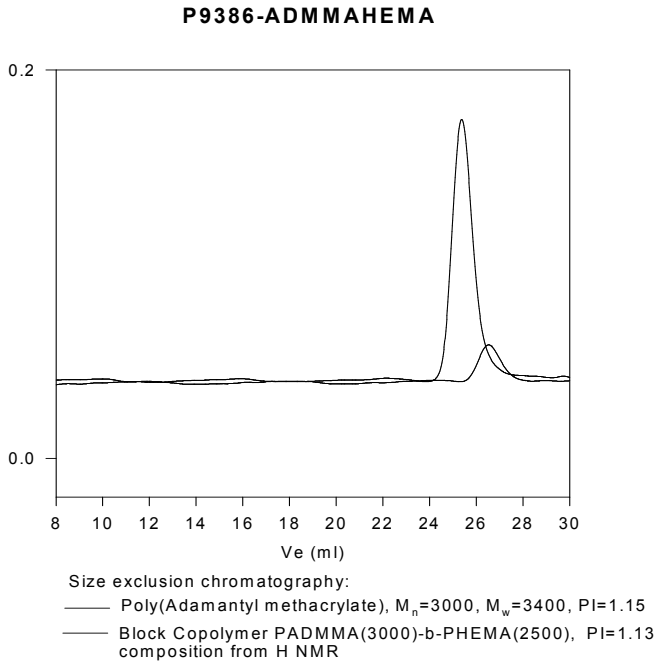
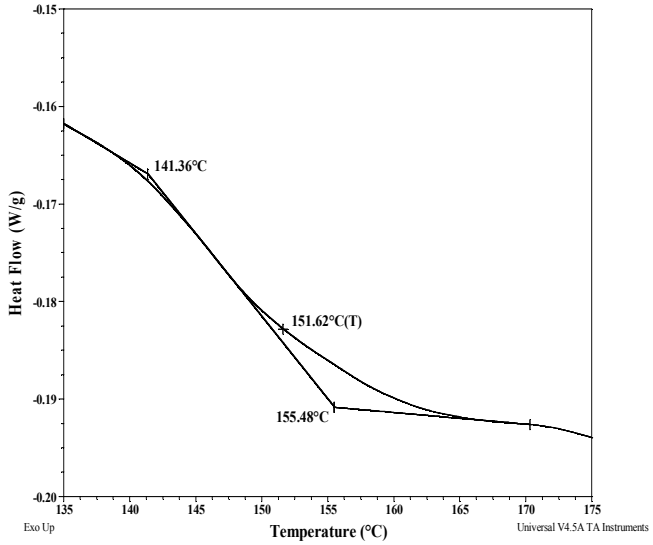
^{1}H-NMR Spectrum of the PADMMA first block:



^{1}H-NMR Spectrum of the block copolymer:



SEC of the block copolymer:



DSC thermogram for the diblock polymer: