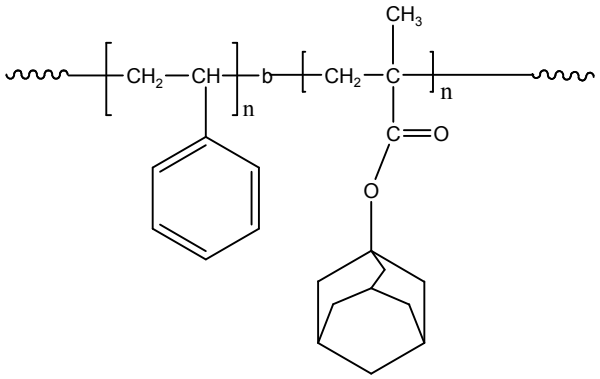
Sample Name:
Poly(Styrene-b-1-Adamantyl methacrylate)

Sample #: P13254-SADMMA
Structure:



Composition:

Mn x 10^3 PS-b-ADMMA	PDI
22.5-b-4.0	1.3
Microstructure for ADMMA	Syndio:hetero:iso Rich in syndiotactic
T_g for S block:97°C	T_g for PADMMA block: Not distinct

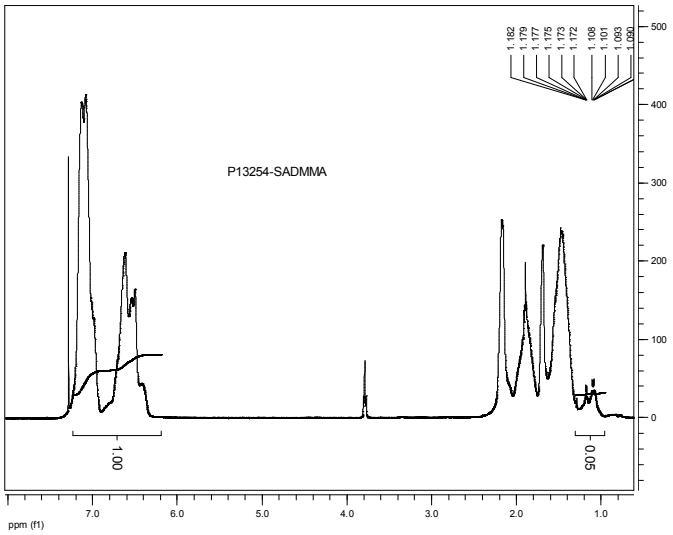
Synthesis Procedure: ***Prepared by controlled radical process (OH end Functionalized PADMMA was first prepared followed by converting to Br ester end functionalized PADMMA). This macroinitiator was used to initiate styrene polymerization..***

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.

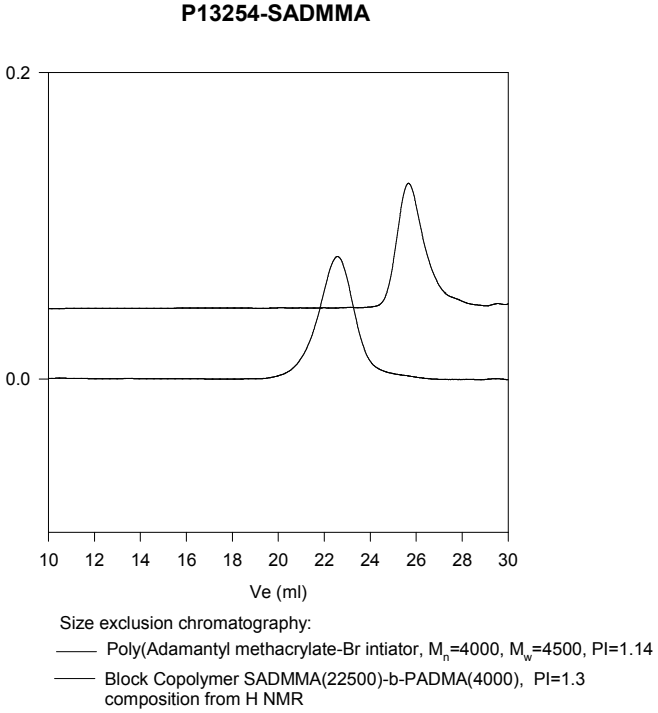
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min.The inflection glass transition temperature (T_g) of the sample has been considered.

Solubility:
Polymer is soluble in THF, $CHCl_3$, toluene and dioxane. The polymer precipitates from hexanes, methanol and ethanol.

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



SEC of the block copolymer:



DSC thermogram for the PS block polymer: