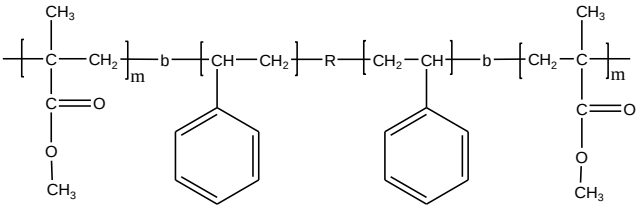
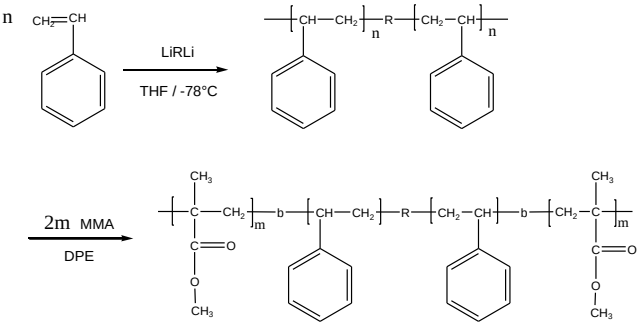
Sample Name:
Poly(methyl methacrylate-b-styrene-b-methyl methacrylate)
Sample #: P8359-MMASMMA
Structure:



Composition:

Mn x 10^3	PDI
38.0-b-133.0-b-38.0	1.2
T_g for PS block:	109°C
T_g for MMA block	131°C

Synthesis Procedure:
Poly(methyl methacrylate -b –styrene -b- methyl methacrylate) is prepared by living anionic polymerization with sequence addition of styrene followed by methyl methacrylate, using difunctional initiator. The scheme of the reaction is illustrated below:



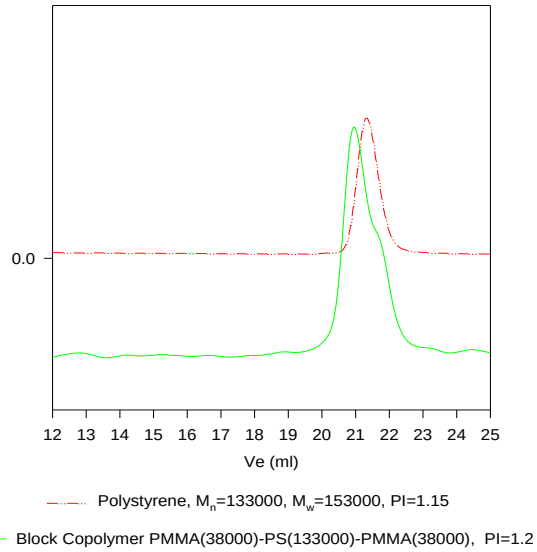
Characterization:
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

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).

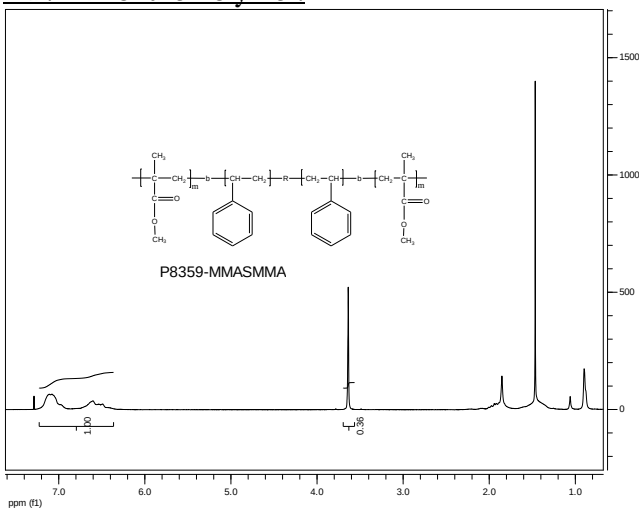
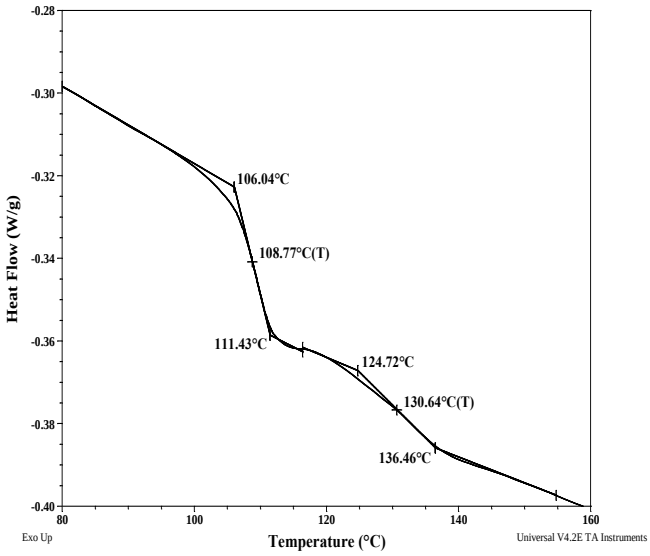
Solubility:
Polymer is soluble in THF, $CHCL_3$, dioxane and benzene.

SEC of Sample:

P8359-MMASMMA



HNMR of the Polymer:



DSC thermogram for the sample: