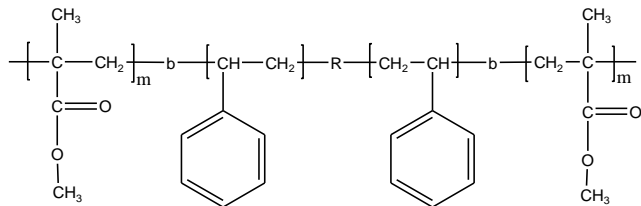


Sample Name:

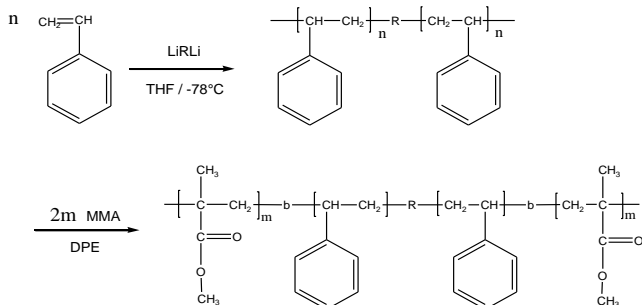
Poly(methyl methacrylate-b-styrene-b-methyl methacrylate)

Sample #: P8356-MMASMA**Structure:****Composition:**

Mn x 10 ³	PDI
108.0-b-200.0-b-108.0	1.3
T _g for MMA block (°C)	134
T _g for S block (°C)	108

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:

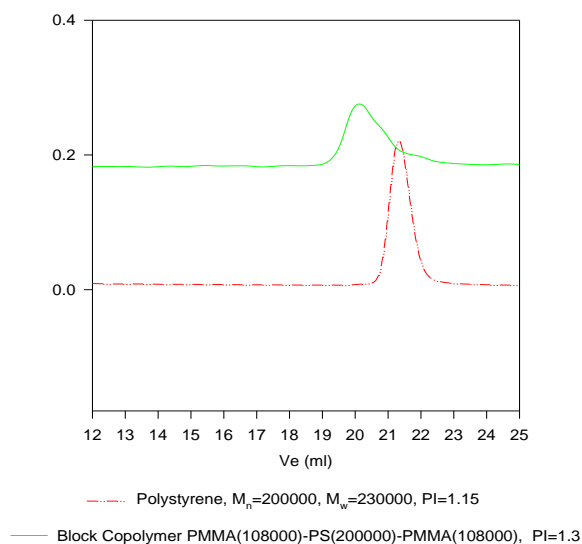
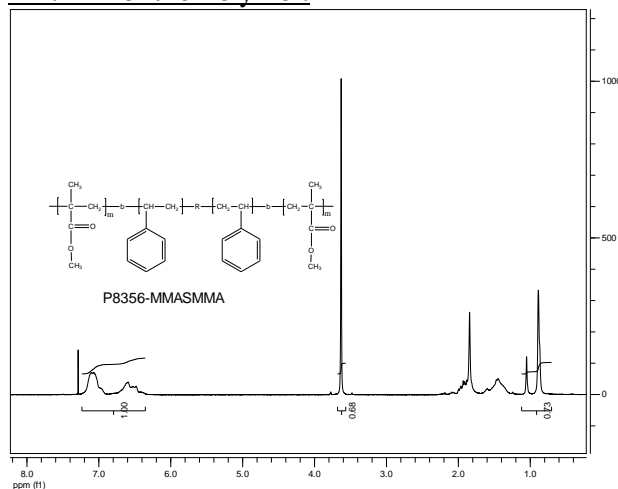
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in THF, CHCl₃, dioxane and benzene.

SEC of Sample:

P8356-MMASMA

**HNMR of the Polymer:****DSC thermogram for the polymer:**