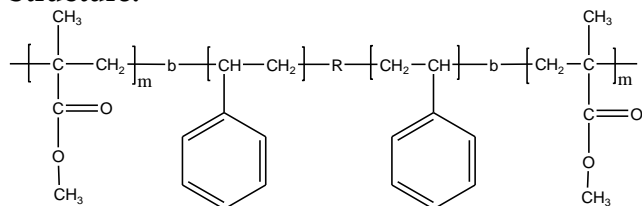


Sample Name:

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

Sample #: **P8357-MMAS MMA**

Structure:

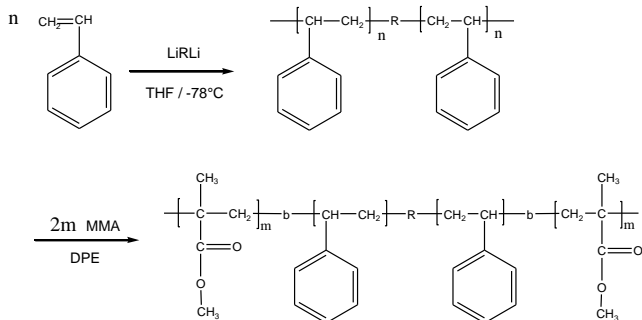


Composition:

Mn x 10 ³	PDI
80.0-b-163.0-b-80.0	1.3
T _g for PS block:	109°C
T _g for MMA block	135°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:

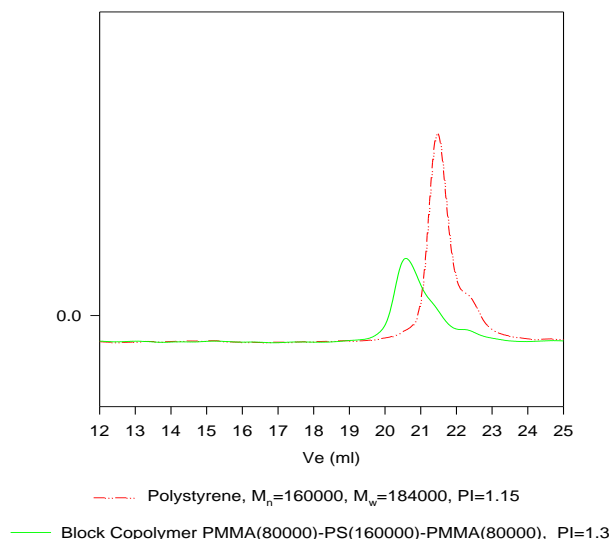
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

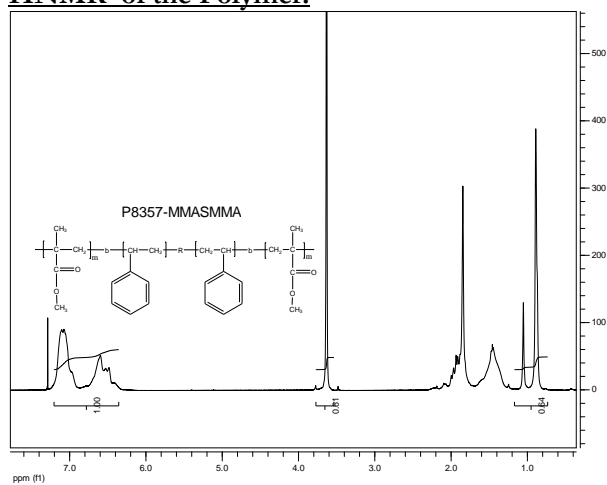
Polymer is soluble in THF, CHCl₃, dioxane and benzene.

SEC of Sample:

P8357-MMAS MMA



HNMR of the Polymer:



DSC thermograms for the sample:

