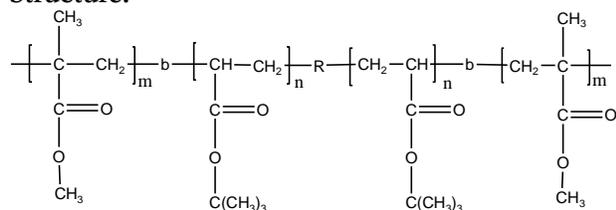


Sample Name:

Poly(methyl methacrylate-b-t-butyl acrylate-b-methyl methacrylate)

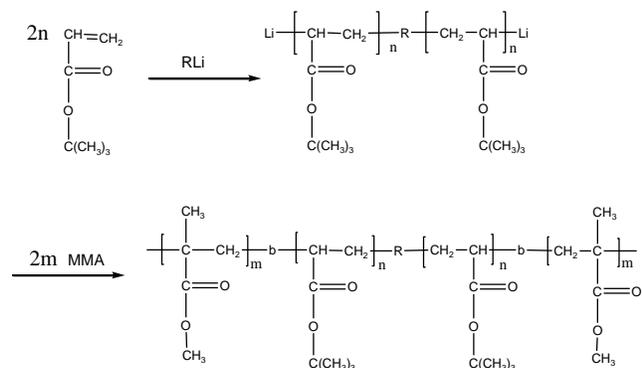
Sample #: P2392 MMAAtBuAMMA

Structure:**Composition:**

Mn x 10 ³	PDI
13.0-58.5-13.0	1.20
T _g for tBuA block	49
T _g for MMA block	127

Synthesis Procedure:

Poly(methyl methacrylate-b-t-butyl acrylate-b-methyl methacrylate) was prepared by living anionic polymerization with sequence addition of tert-butyl acrylate (tBA), followed by methyl methacrylate (MMA) using a 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

DSC thermograms for the sample: