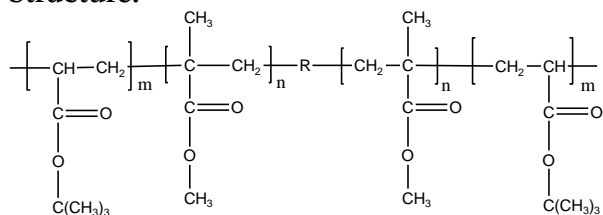


Sample Name:

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

Sample #: P834-tBuAMMAAtBuA

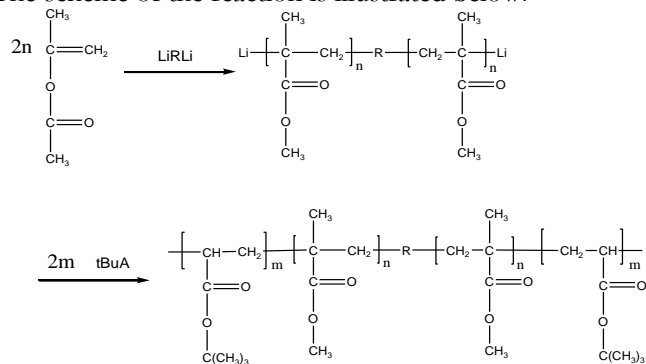
Structure:**Composition:**

$M_n \times 10^3$	PDI
10.8-3.6-10.8	1.09
T_g for tBuA block	46°C
T_g for MMA block	Not observed

Synthesis Procedure:

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

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

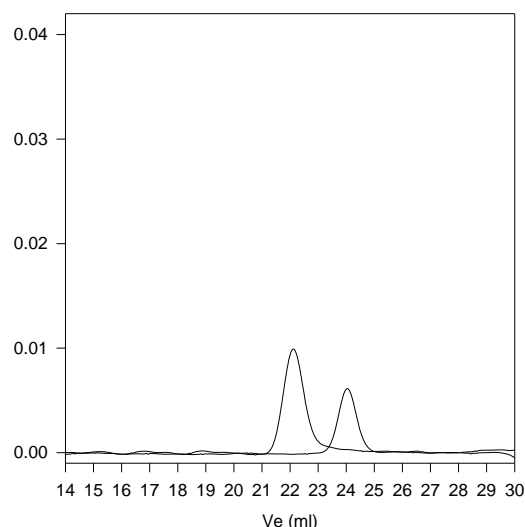
flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

The tri-block polymer is soluble in THF, toluene and CHCl_3 .

SEC of Sample:

P834-tBuAMMAAtBuA



Size exclusion chromatography of:
Poly(t-butyl acrylate-b-methylmethacrylate-b-t-butylacrylate)
— Poly(methylmethacrylate), $M_n=3600$, $M_w=3900$, $PI=1.06$

— Triblock Copolymer PtBuA(10800)-b-PMMA(3600)-b-PtBuA(10800) $PI=1.09$

DSC thermal analysis: