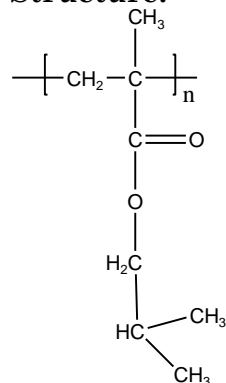


Sample Name: Poly(isobutyl methacrylate)

Sample #: P8467-iBuMA

Structure:

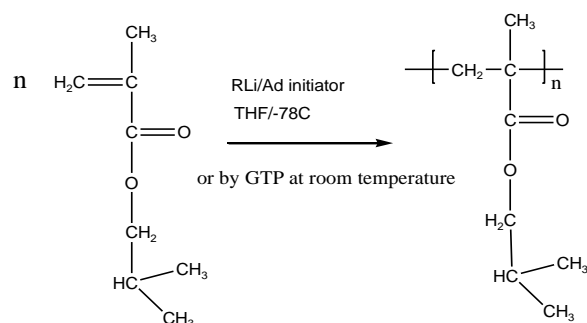


Composition:

$M_n \times 10^3$	PDI
23.0	1.35
T_g ($^{\circ}C$)	62

Synthesis Procedure:

Poly(isobutyl methacrylate) is obtained by anionic or GTP process. The polymerization scheme can be illustrated as follows:



Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotec Co.

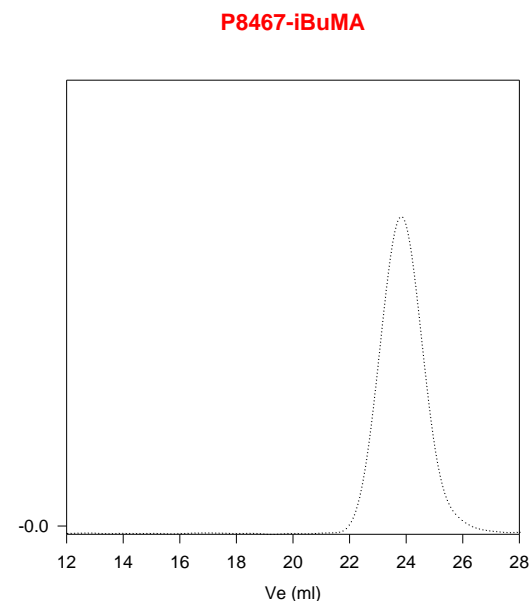
Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}C/min$. 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:

Poly(isobutyl methacrylate) is soluble in THF, $CHCl_3$, toluene and dioxane. The polymer precipitates from hexanes, methanol and ethanol.

SEC of the Homopolymer:



Size exclusion chromatograph of Poly iso-butyl methacrylate:

$M_n=23000$, $M_w=31000$ $PI=1.35$

DSC thermogram for the polymer:

