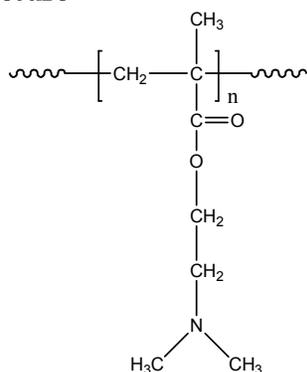


Sample Name:

**Poly(N,N-dimethylaminoethyl methacrylate)**

Sample #: P7532-DMAEMA

Structure:

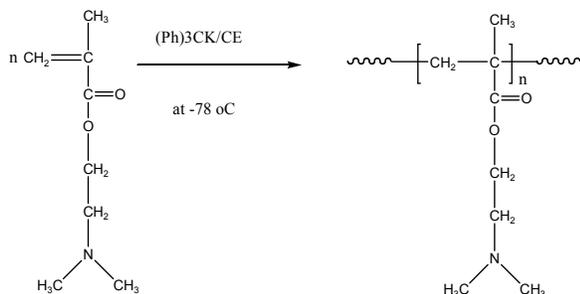


Composition:

$M_n \times 10^3$	PDI
14.5	2.0
$T_g$ ( $^{\circ}C$ )	23

Synthesis Procedure:

The polymer is synthesized by living anionic polymerization of dimethylaminoethyl methacrylate. The reaction scheme is shown below.



Characterization:

The molecular weight and polydispersity index (PDI) of the polymer are obtained by size exclusion chromatography

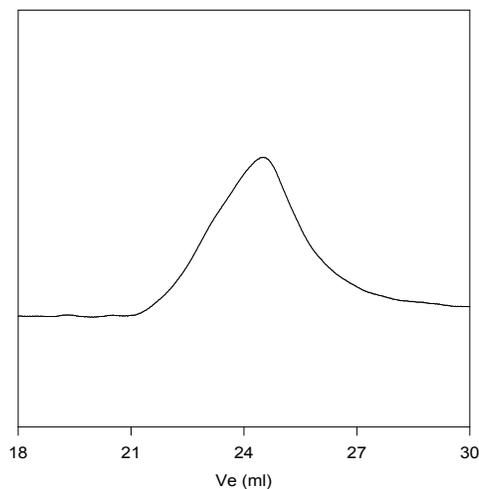
Thermal analysis:

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: Polymer is soluble in methanol, ethanol and water, precipitated in hexane.

SEC of Homopolymer:

**P7532-DMAEMA**



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):  
 $M_n=14500$ ;  $M_w=29,000$ ;  $M_w/M_n=2.0$

DSC thermogram for the polymer:

