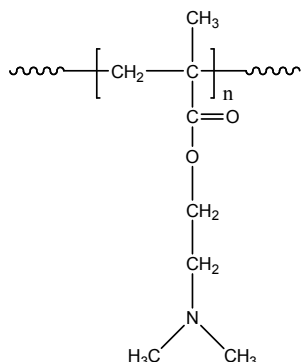


Sample Name:

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

Sample #: P8590-DMAEMA

**Structure:**

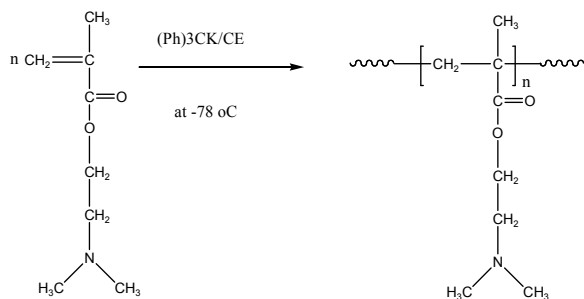


**Composition:**

$M_n \times 10^3$	PDI
15.0	2.5
$T_g (^{\circ}\text{C})$	02

**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:**

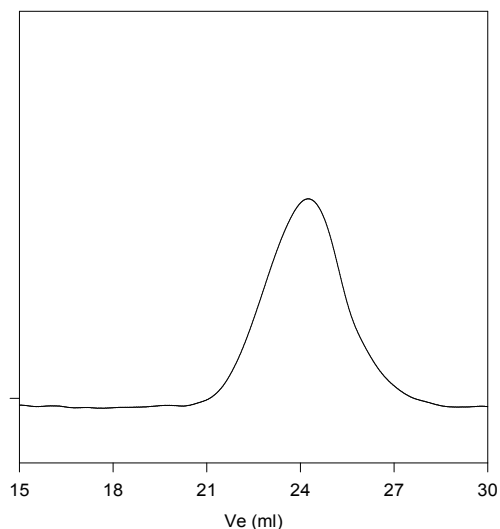
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature ( $T_g$ ).

**Solubility:**

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

**SEC of Homopolymer:**

**P8590-DMAEMA**



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):

$M_n=15000$ ;  $M_w=37,500$ ;  $M_w/M_n=2.5$

**DSC thermogram for the polymer:**

