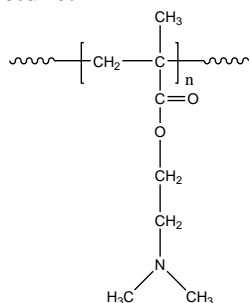


Sample Name:
Poly(N-N-dimethylaminoethyl methacrylate)

Sample #: **P7525-DMAEMA**

Structure:

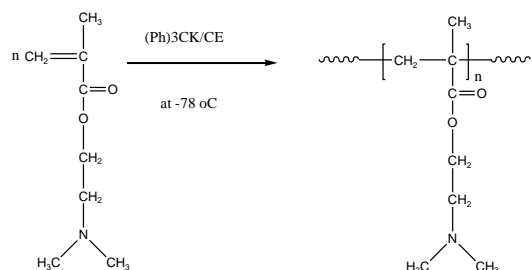


Composition:

$M_n \times 10^3$	PDI
11.0	1.4
T_g ($^{\circ}\text{C}$)	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:

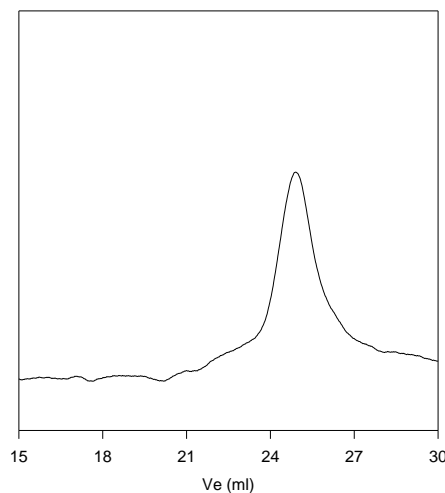
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}\text{C}/\text{min}$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

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

SEC elugram of Homopolymer:

P7525-DMAEMA



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):
 $M_n=11000$; $M_w=15,500$; $M_w/M_n=1.4$

DSC thermogram for the polymer:

