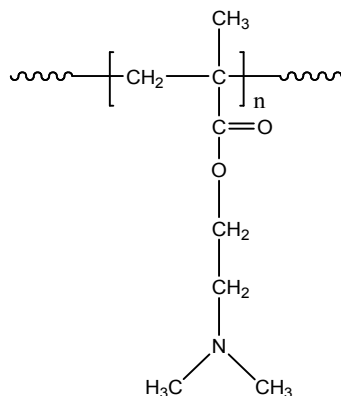


Sample Name:
Poly(N-N-dimethylaminoethyl methacrylate)

Sample #: **P7534-DMAEMA**

Structure:

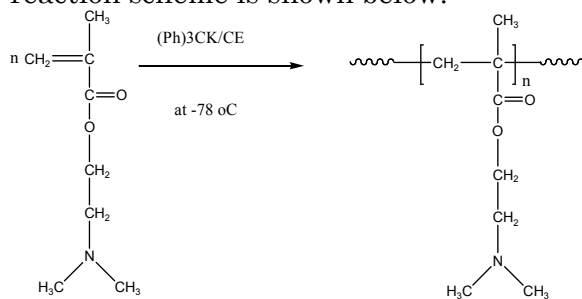


Composition:

$M_n \times 10^3$	PDI
35.0	2.2
T_g (°C)	18

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:

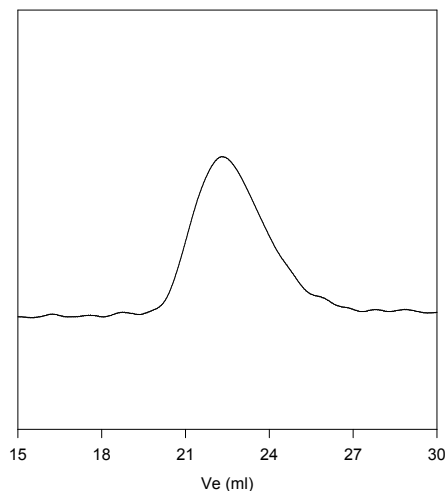
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

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

SEC of Homopolymer:

P7534-DMAEMA



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):
 $M_n=35,000$; $M_w=77,000$; $M_w/M_n=2.2$

DSC thermogram for the polymer:

