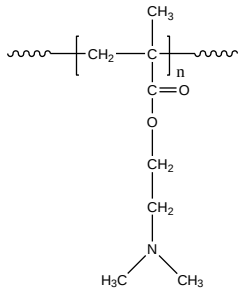
Sample Name:
Poly(N-N-dimethylaminoethyl methacrylate)

Sample #: **P7549-DMAEMA**

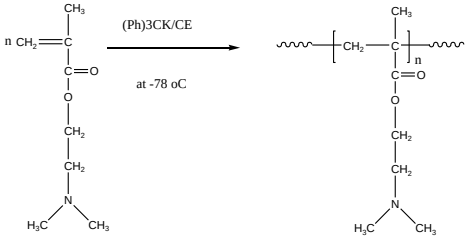
Structure:



Composition:

$Mn \times 10^3$	PDI
13.0	1.4
T_g (^oC)	21

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

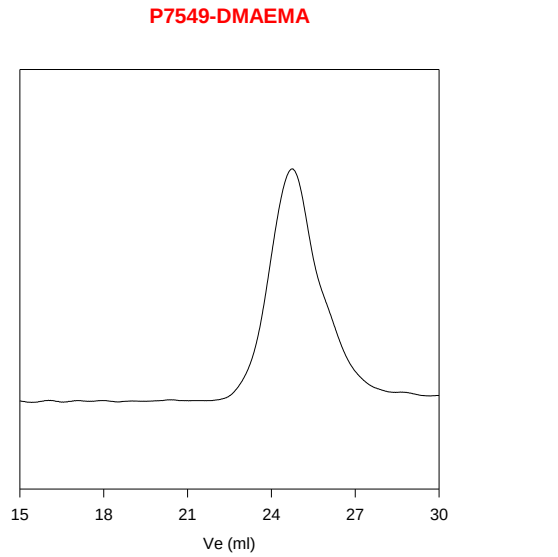


Characterization:
The molecular weight and polydispersity index (PDI) of the polymer are obtained by size exclusion chromatography

Thermal analysis:
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10^oC/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:



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):
M_n=13000; M_w=18000; M_w/M_n=1.4

DSC thermogram for the polymer: