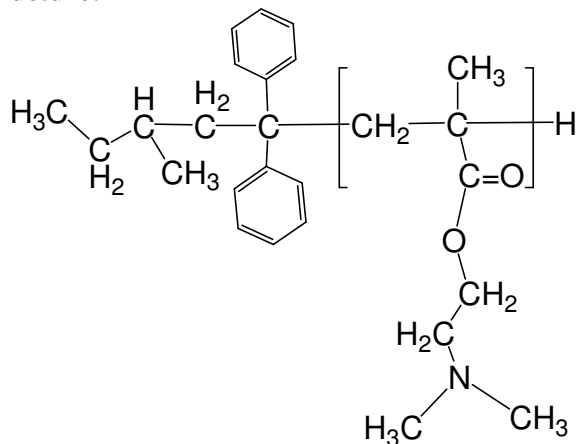


Sample Name:

Poly(N-N-dimethylaminoethyl methacrylate)

Sample # **P9739-DMAEMA**

Structure:

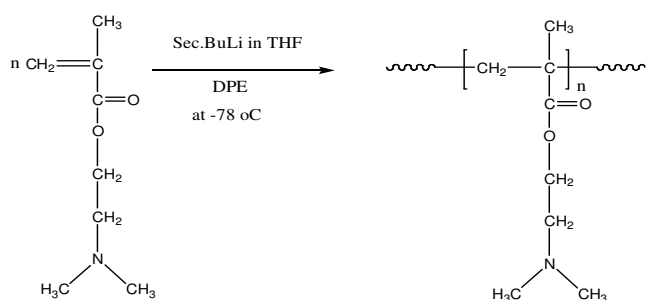


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
2.7	1.16
Glass transition temperature:	$T_g = 11^\circ\text{C}$

Synthesis Procedure:

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



Characterization:

The molecular weight and polydispersity index of the polymer were obtained by size exclusion chromatography (SEC).

Thermal analysis:

Thermal analysis of the polymer 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

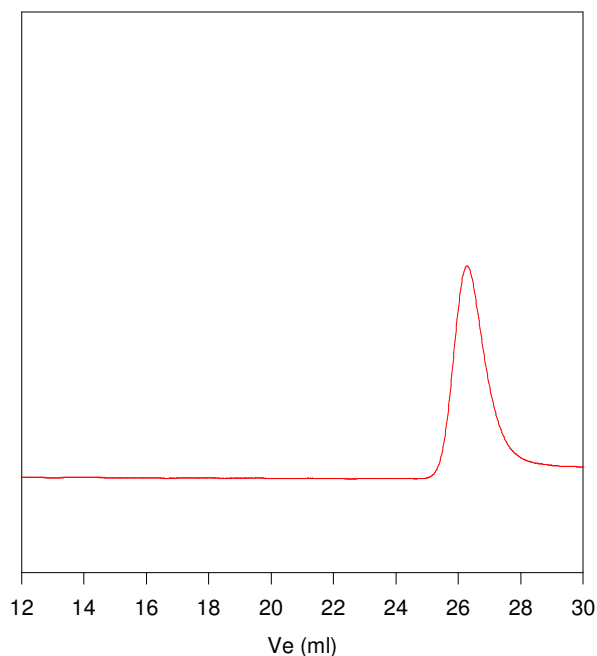
the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

The polymer is soluble in methanol, ethanol, water; and it precipitates from hexane.

SEC elugram:

P9739-DMAEMA



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

$M_n=2700$; $M_w=3100$; $M_w/M_n=1.16$

DSC thermogram:

