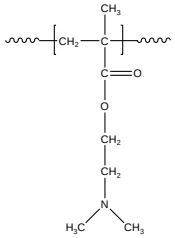
Sample Name:
Poly(N,N-dimethylaminoethyl methacrylate)

Lyopholized from water

Sample #: **P44335-DMAEMA**

Structure:



Composition:

$Mn \times 10^3$	PDI
62.5	2.2

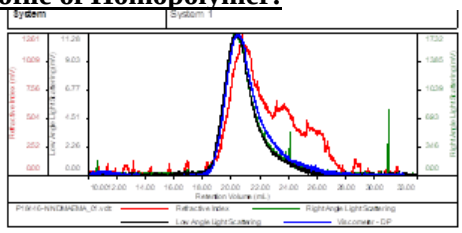
Synthesis Procedure:
Poly (N,N-dimethyl aminoethyl methacrylate) is obtained by GTP polymerization process.

Characterization:
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

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:
Poly(N,N-dimethylaminoethyl methacrylate) is soluble in THF, $CHCl_3$, toluene and dioxane. The polymer precipitates from hexanes, methanol and ethanol.

SEC profile of Homopolymer:



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18446-NNDMAEMA_01.vdt	62,454	137,748	193,564	2.206	0.3318

Lyophilization from water:
Polymer dissolved in Water not vary clear solution however after adding few drops of methanol clear solution form 100mg/10ml of water
product lyophilized from water.