

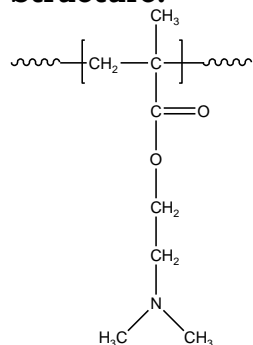
Sample Name:

Poly(N,N-dimethylaminoethyl methacrylate)

Sample #: **P18441-DMAEMA**

(obtained by anionic polymerization)

Structure:



Composition:

Mn × 10 ³	PDI
55.0	1.02

Synthesis Procedure:

Poly(N,N-dimethylaminoethyl methacrylate) is obtained by anionic or free radical or by GTP 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:

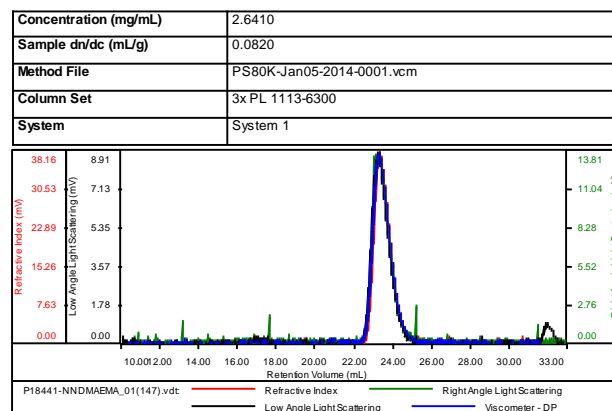
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Poly(N,N-dimethylaminoethyl methacrylate) is soluble in THF, CHCl₃, toluene and dioxane. The polymer precipitates from hexanes, methanol and ethanol.

SEC of Homopolymer:

Sample ID: P18441-NN-DMAEMA



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18441-NN-DMAEMA_01(147).vdt	55,759	56,599	54,590	1.015	0.1644

