

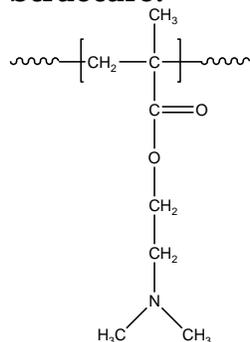
Sample Name:

Poly(N,N-dimethylaminoethyl methacrylate)

Sample #: **P18450A-DMAEMA**

(obtained by anionic polymerization)

Structure:



Composition:

Mn × 10 ³	PDI
31.0	1.35

Synthesis Procedure:

Poly(N,N-dimethyl aminoethyl 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).

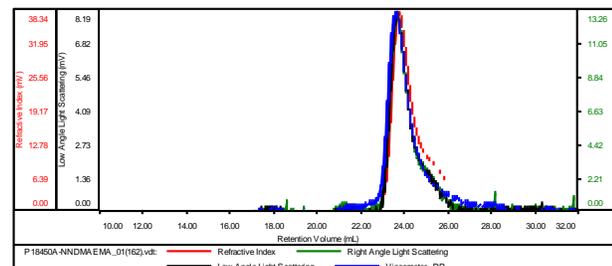
Solubility:

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: P18450A-NN DMAEMA

Concentration (mg/mL)	1.8278
Sample dn/dc (mL/g)	0.0850
Method File	PS80K-Feb10-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18450A-NNDMAEMA_01(162).vdt	31,043	41,699	48,621	1.343	0.2976

