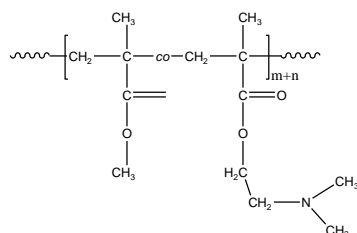Sample Name: **Random Copolymer Poly(methyl methacrylate-co-NN dimethyl amino ethylmethacrylate)**

Sample #: **P40731-MMADMAEMAran**

Structure:

Composition:

PMMA (75mol %) :

Mn x 10^3 PMMA-co-DMAEMA	21.5
PDI	1.4
T_g for the random copolymer:	40 °C

Synthesis Procedure:

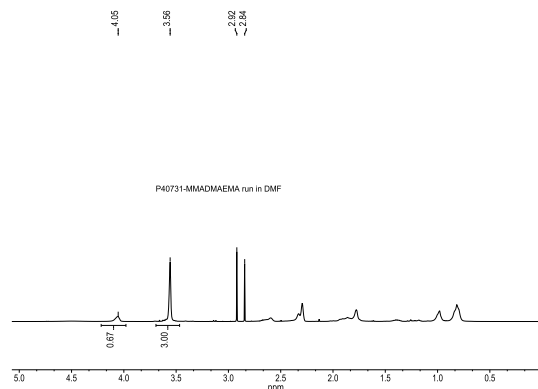The polymer was synthesized by RAFT polymerization process.

Characterization:

The product was characterized by size exclusion chromatography (SEC) and ^{1}H NMR.

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).
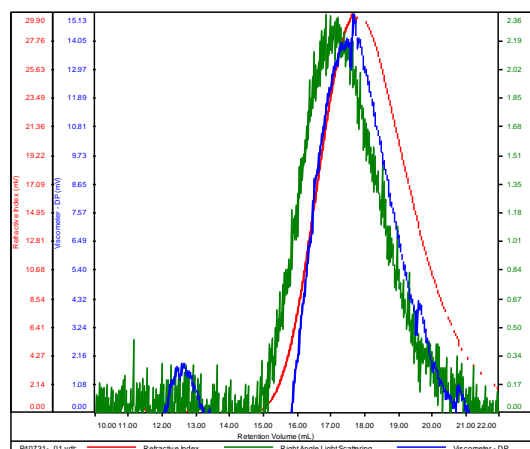
^{1}H-NMR Spectrum of the random copolymer:

P40731-MMADMAEMA run in DMF

SEC elugram of the random copolymer:

Conc	6.0870
dn/dc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2017-July-05-0000.vcm

Sample	Mn	Mw	Mp	Mw/Mn	IV
P40731-_01.vdt	12,359	17,568	18,943	1.421	0.0706

Thermogram for the sample:

Sample: P40731_MMADMAEMAran
Size: 18.9000 mg
File: P40731_MMADMAEMAran.001

39.75°C(H)
0.3520J/(g.°C)

v.R-01