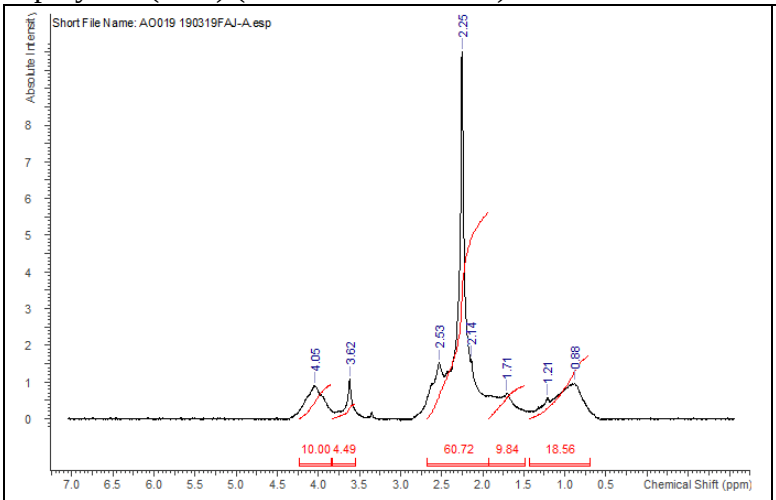
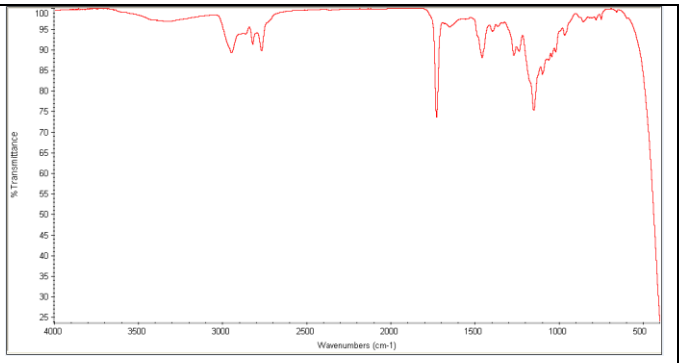
No. AO019 Certificate of Analysis

Product Name: Poly(dimethylaminoethyl methacrylate-co-methoxy polyethylene glycol) copolymer (95:5) (Lot# 190319FAJ-A)

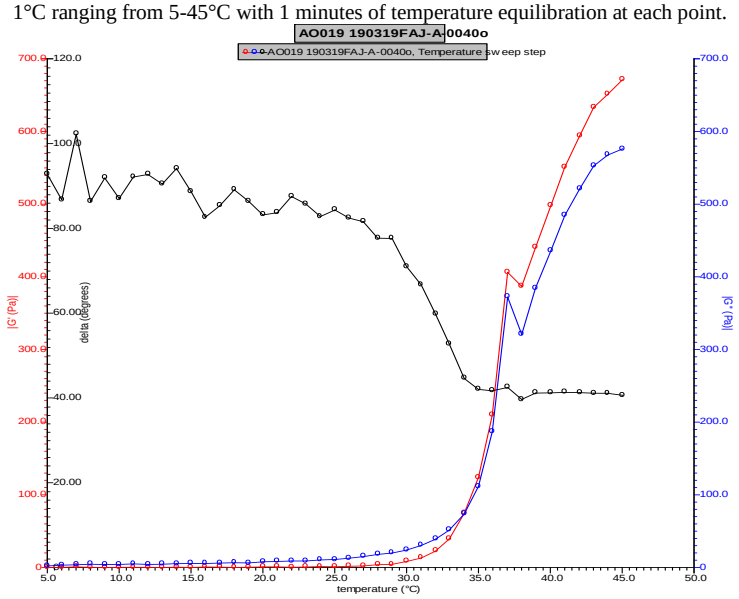


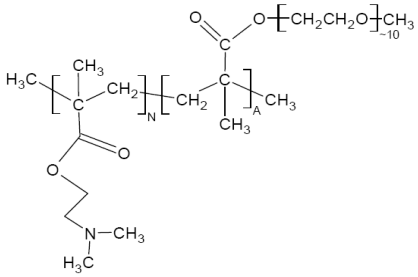
H-NMR Spectrum of copolymers in D2O (NMReady 60e, Nanalysis, 60 MHz) NMR of PDMAEMA-mPEG copolymer:



FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicollet Avatar 320 spectrometer and analyzed in transmission mode.

Rheology performed on AR2000 (TA instruments) with 60mm 2degree cone on 20% w/v polymer in water dissolved with cold stirring. Viscosity of solution at 0.1 (sec^{-1}) and 5°C was measured (1minute peak hold 5 second test intervals). Rheology performed by oscillating at constant 6.283 rad/s, 0.1% strain, in increments of 1°C ranging from 5-45°C with 1 minutes of temperature equilibration at each point.



Viscosity 20% w/v solution at 5°C	0.6732 Pa/**s**

- **Structure of PDMAEMA-mPEG**