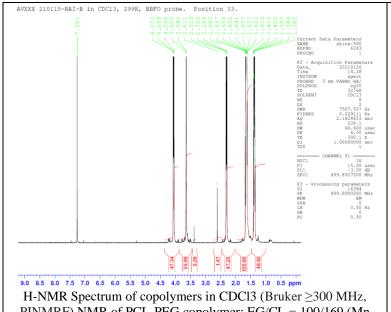
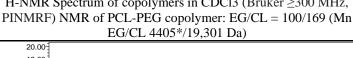
No. AV040 Certificate of Analysis

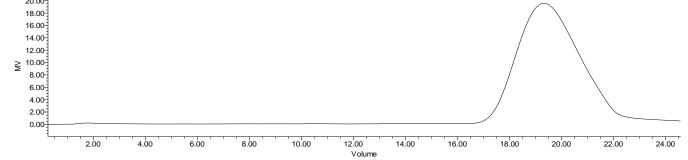


Product Name: Methoxy Poly(ethylene glycol)-b-Poly(caprolactone) – DTAF PolySciTech diblock conclusions (5,000,20,000) diblock copolymers (5,000-20,000 Da) (Lot#: 200215RAI-A)



FTIR Analysis: Collected from cast-film on KBr salt-plate placed in Nicollet Avatar 380 spectrometer with ATR Smart Orbit and analyzed in transmission mode.





GPC Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PCL-PEG	27,426	44,709	1.63
PEG precursor*	4421*		

*- from MFG data

Structure of mPEG-PCL-DTAF copolymers

$$H_3CO - CH_2CH_2O - CH_2CH_2O - CH_2O - CH_2$$

Dye Content: Testing of absorbance of polymer at 452nm as compared to a series of DTAF standards has indicated a dye content of: 14.13 µg/mg polymer.