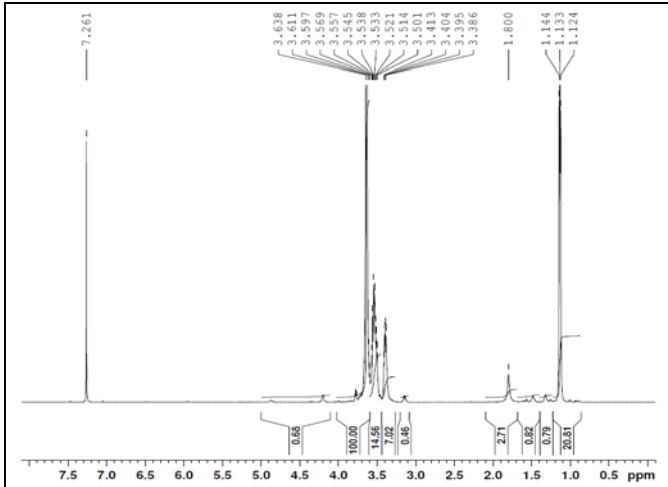


No. AO-20

Certificate of Analysis

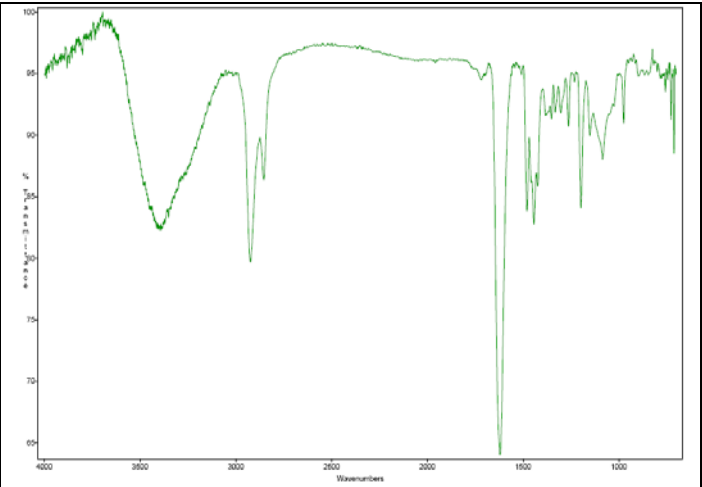
Product Name: Poly(Poloxamer 407)-co-hexamethylene-diisocyanate copolymer methoxy poly(ethylene glycol) (5000Da) endcap (nominal 10 poloxamer chains/mPEG endcap)

H-NMR



H-NMR Spectrum of P(Pluronic) polymer in D₂O (Varian Inova 300 MHz instrument)

FTIR

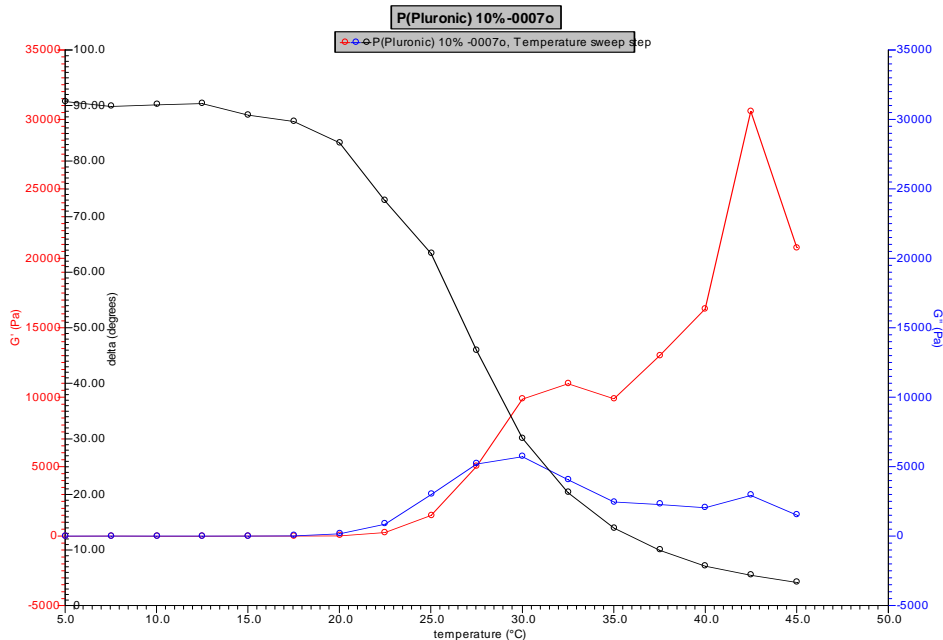


FTIR Analysis: Collected from cast-film on KBR salt-plate placed in Satellite FTIR (Thermo-Mattson) and analyzed in transmission mode.

Rheology

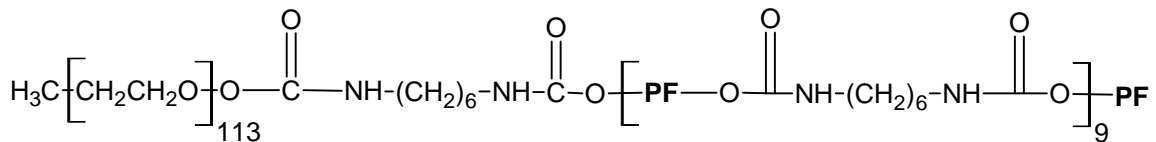
Rheology performed on AR550 (TA instruments) with 60mm 2degree cone on 10% w/v polymer in water dissolved overnight with stirring at 4C. Viscosity of solution at 0.1 (sec-1) and 5C was measured (1minute peak hold 5 second test intervals). Rheology performed by oscillating at constant 6.283 rad/s, 0.1% strain, in increments of 2.5C ranging from 5-45C with 3 minutes of temperature equilibration at each point.

Rheology Chart



Viscosity 10% w/v solution at 5C	0.2203 Pa.s
----------------------------------	-------------

Chemical Structure



PF = Poloxamer 407 Chain