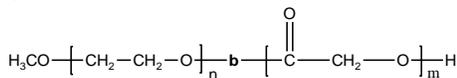


Sample Name:

Poly(ethylene oxide -b- glycolide)

Sample #: P10616-EOGL

Structure:

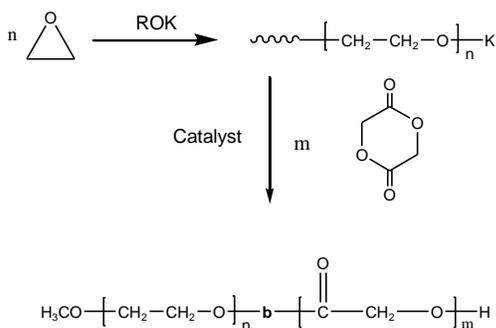


Composition:

Mn x 10 <sup>3</sup> PEO-b-PGL	PDI
5.0-b-5.0	1.15

Synthesis Procedure:

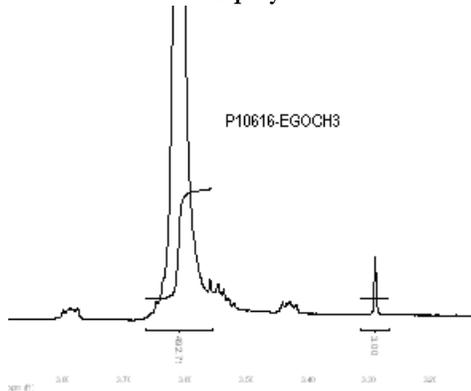
Poly(ethylene oxide -b- Glycolide) is prepared by living anionic polymerization of ethylene oxide and coordination polymerization of glycolide with Tin octoate as catalyst. The scheme of the reaction is illustrated below:



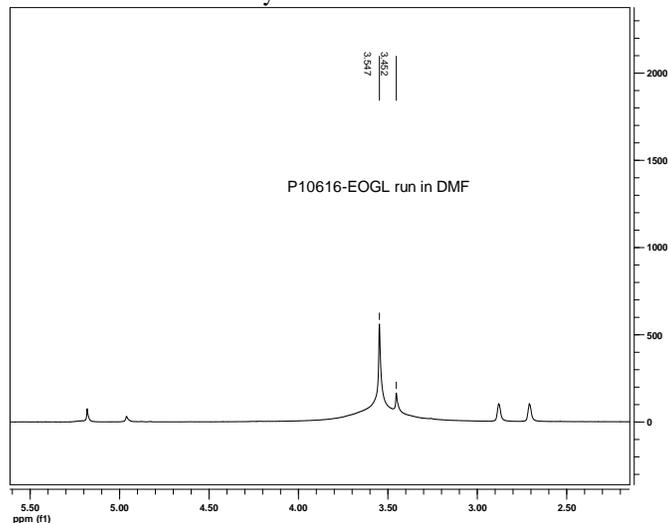
Characterization:

An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of lactide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was determined by SEC profile and from the yield of the polymer. HNMR of the polymer carried out in DMF the results are illustrated below:

HNMR of the PEG polymer:



HNMR of the PEG-Glycolide in DMF

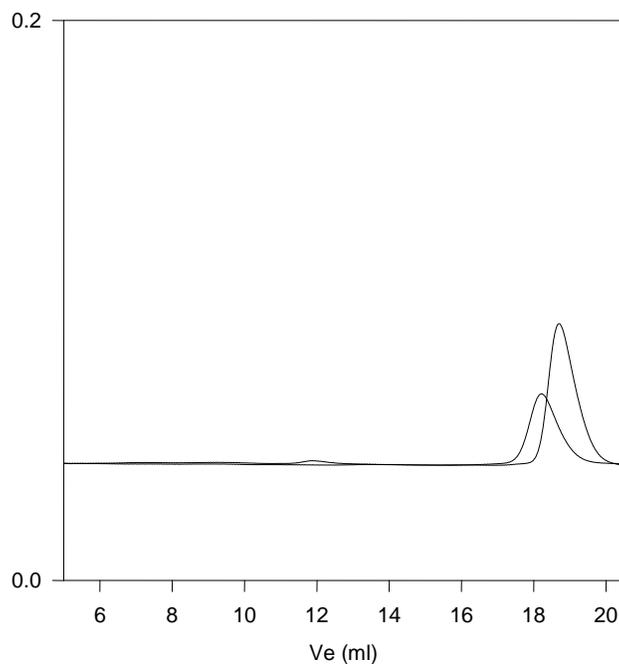


Solubility:

The polymer is soluble in Hexafluoroisopropanol and in DMF.

SEC of polymer:

P10616-EOGL run in DMF at 60 oC



Size exclusion chromatography:

— Poly(ethylene glycol), M<sub>n</sub>=5000, PI=1.05

— Block Copolymer PEO(5000)-b-PGL(5000), PI=1.15