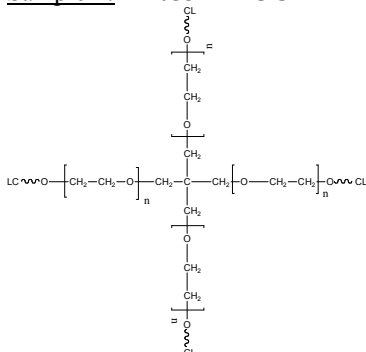


Sample Name:

Four arm Poly(ethylene oxide –b-ε-caprolactone) Pentaerythritol Core

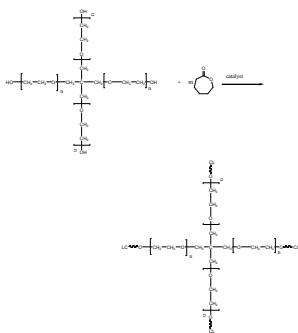
Sample #: **P10531-4EOCL**



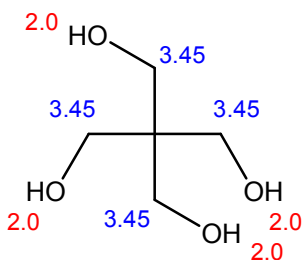
Mn x 10 ³ Total (branch)	PDI
0.136-b-1.06 Mn : (0.003-b-0.265)	1.15
Dp of each branch: EO-b-CL 0.77-b-2.30 (average)	

Synthesis Procedure:

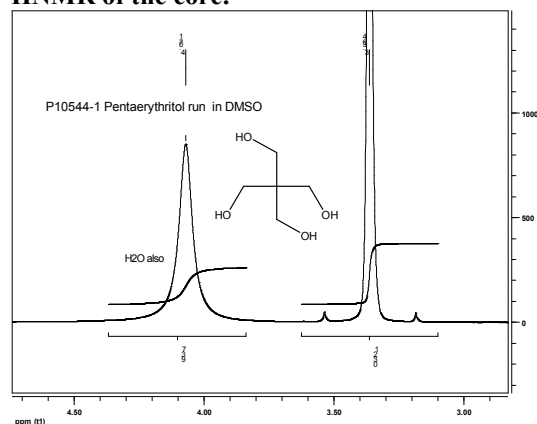
The polymer was prepared by ring opening polymerization of caprolacton using Tin octoate as the catalyst and pentaerthritol that bears Mn of 136. The scheme of the reaction is illustrated below:



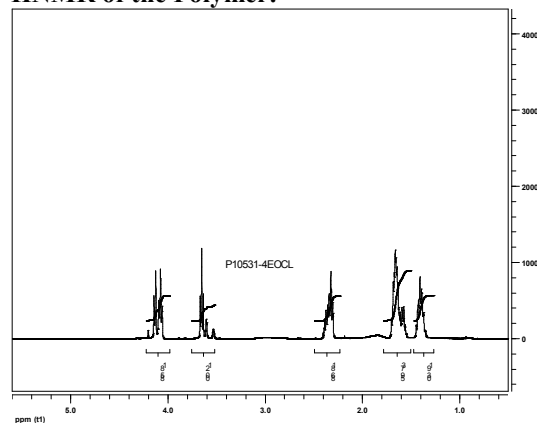
Characterization data for the core bearing Mn: 136



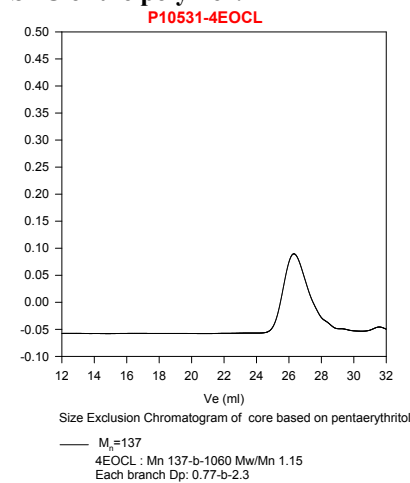
¹H-NMR of the core:



¹H-NMR of the Polymer:



SEC of the polymer:



Characterization:

The Mn of the polymer is calculated from ¹H-NMR spectroscopy by comparing the peak area of the core protons at about 3.6 ppm with the ε-caprolactone protons at about 4.1 ppm. Polydispersity is determined by size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 2 vol% (Et)₃N as the eluent.