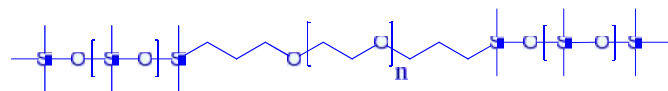


Sample Name: Poly(dimethyl siloxane-b-ethylene oxide-b-dimethyl siloxane) Trimethyl siloxy end group

Sample #: P9092B-DMSEODMS

Prepared by route : 2

Structure:

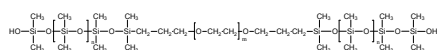
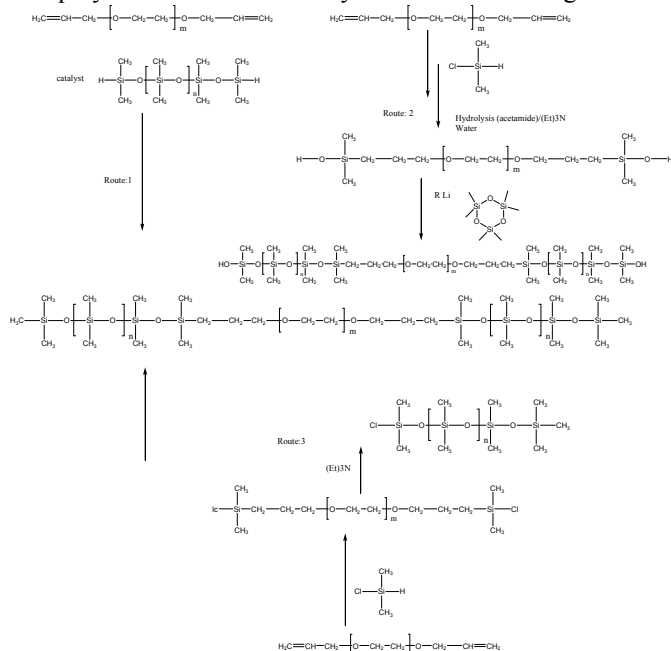


Composition:

Mn x 10 ³	PDI
PDMS-b-PEO-b-PDMS	
0.5-b-0.42-b-0.5	1.45

Synthesis Procedure:

The polymer can be obtained by one of the following routes:



Characterization:

The polymer was analyzed by size exclusion chromatography (SEC) and NMR to obtain the molecular weight and polydispersity index (PDI). Copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the siloxane protons at about 0.08 ppm with the peak area of ethylene oxide protons at about 3.4 ppm.

Solubility:

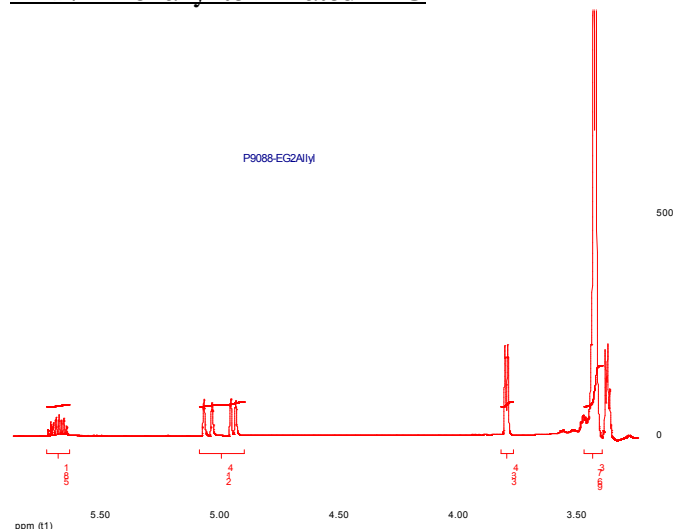
The polymer is soluble in THF, chloroform, not soluble in MeOH/water mixture;

FTIR: SiH – Characteristics absorbance: 2120cm⁻¹

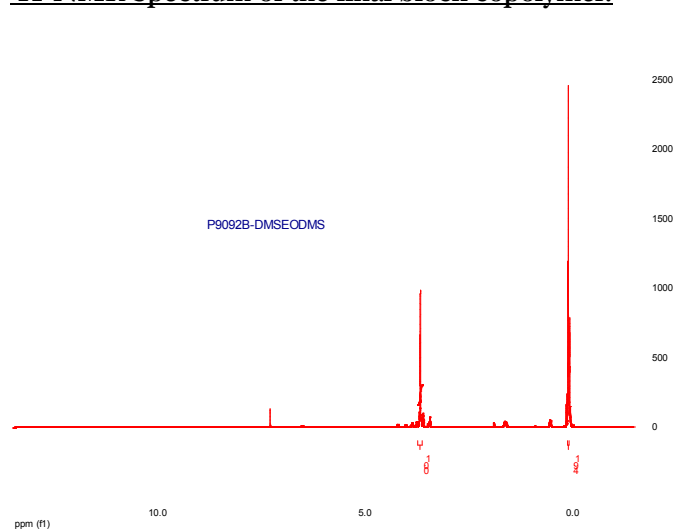
CH=CH₂ in PEG: absorbance: 1645cm⁻¹

After the reaction these absorbance must disappear indicating the stoichiometry required for the reaction.

¹H-NMR of allyl terminated PEO



¹H-NMR Spectrum of the final block copolymer:



SEC of the polymer

P9092B-DMSEODMS

