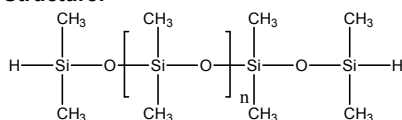


Sample Name:

α,ω -Silane Terminated Polydimethylsiloxane

Sample #: P4954-DMS2SiH

Structure:

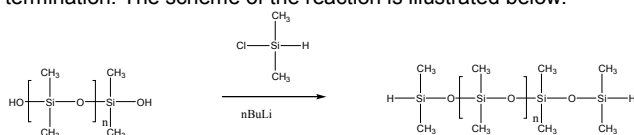


Composition:

Mn x 10 ³	PDI
0.75	1.10

Synthesis Procedure:

The polymer was prepared by modifying polysiloxane diol using n-butyl lithium as catalyst, followed by dimethylchlorosilane termination. The scheme of the reaction is illustrated below:



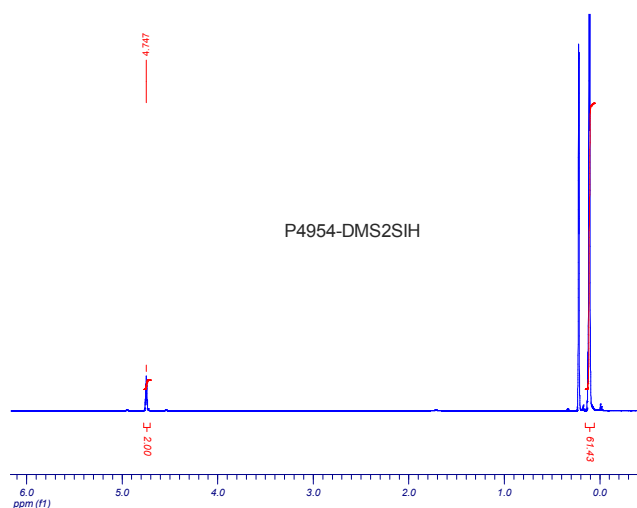
Characterization:

The molecular weight and polydispersity index of this polymer was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. The modification ratio was calculated from NMR by comparing the silane protons at 4.7ppm and the dimethylsiloxane methyl group at 0.08ppm,

Solubility:

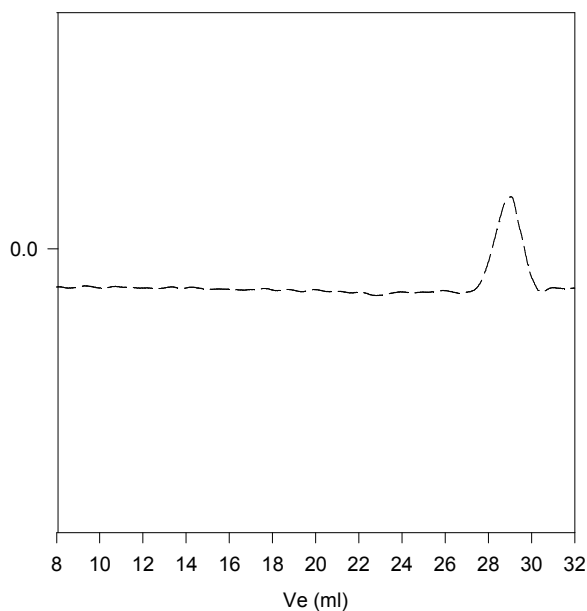
The polymer is soluble in hexane, toluene, cyclohexane, THF and chloroform but precipitates from methanol and ethanol

NMR of Sample



SEC of Sample:

P4954-DMS2SiH



Size exclusion chromatography of α,ω -disilane terminated polydimethylsiloxane

— Polydimethylsiloxane M_n=750, M_w=825, PI=1.10 (from H NMR analysis)