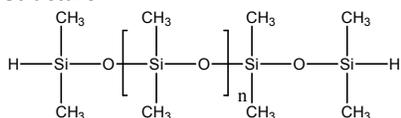


Sample Name:
 α,ω -Silane Terminated Polydimethylsiloxane

Sample #: P4950-DMS2SiH

Structure:

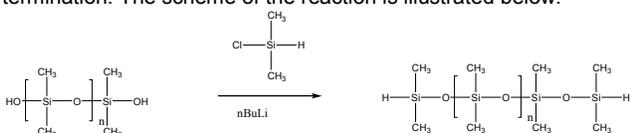


Composition:

Mn x 10 ³	PDI
6.0	1.2

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:

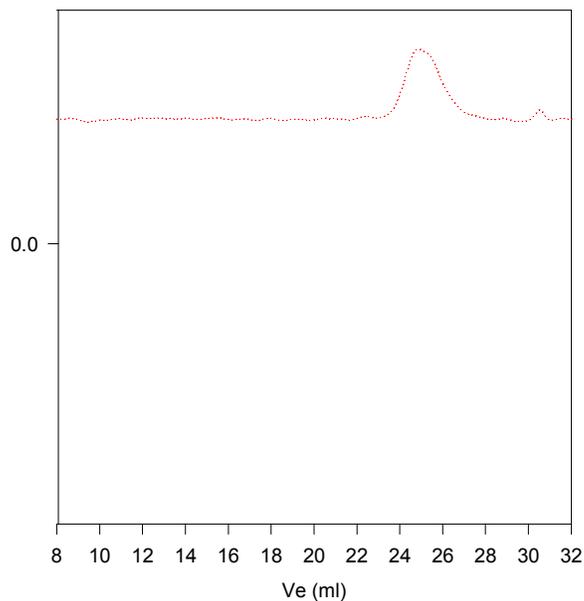
The molecular weight and polydispersity index of this polymer was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. The modification ratio was calculated from NMR by comparing the silane protons at 4.7ppm and the dimethylsiloxane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

Solubility:

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

SEC of Sample:

P4950-DMS2SiH



Size exclusion chromatography of α,ω -disilane terminated polydimethylsiloxane

..... Polydimethylsiloxane $M_n=6000$, $M_w=7500$, $PI=1.2$ (from FTIR analysis)