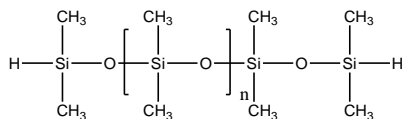


Sample Name:

Poly(dimethylsiloxane), α,ω -bis(silane)-terminated

Sample #: **P5019-DMS2SiH**

Structure:

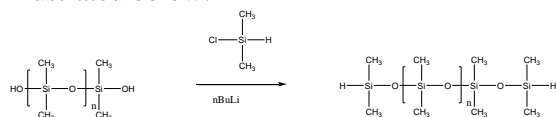


Composition:

$M_n \times 10^3$	PDI
12.2	1.11

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:

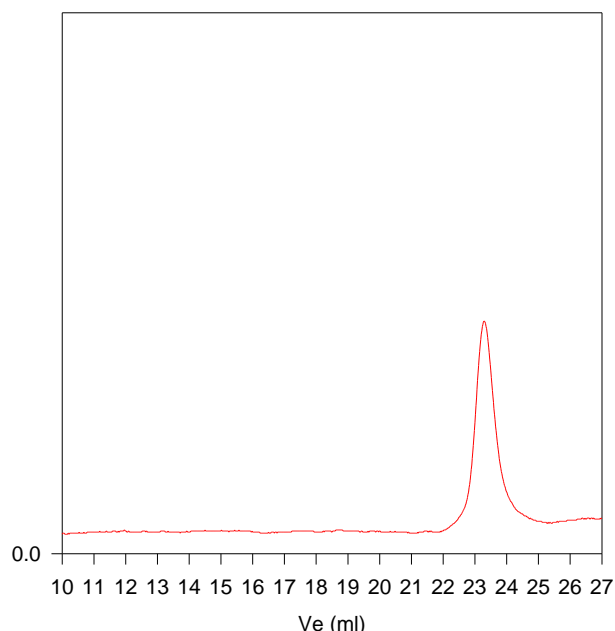
The molecular weight and polydispersity index of this polymer was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. The modification ratio was calculated from NMR by comparing the silane protons at 4.7ppm and the dimethylsiloxane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

P5019-DMS2SiH



Size exclusion chromatography of polymer:

$M_n=12,200$, $M_w=13,500$, $M_w/M_n=1.11$, functionality=>0.98%