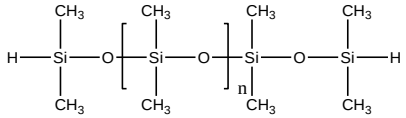
Sample Name:
Poly(dimethylsiloxane), α,ω-bis(silane)-terminated

Sample #: **P42364-DMS2SiH**

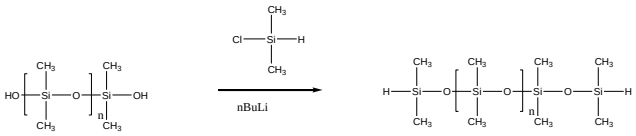
Structure:



Composition:

Mn x 10^3	PDI
2.5	1.25

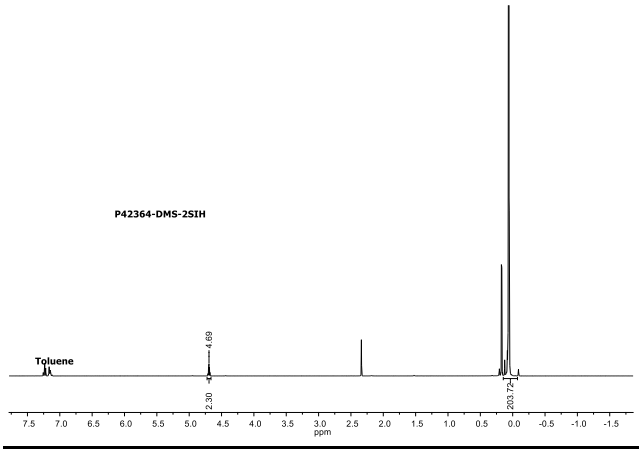
Synthesis Procedure:
The polymer was prepared by modifying polysiloxane diol using n- butyl lithium as catalyst, followed by dimethylchlorosilane termination. The scheme of the reaction is illustrated below:



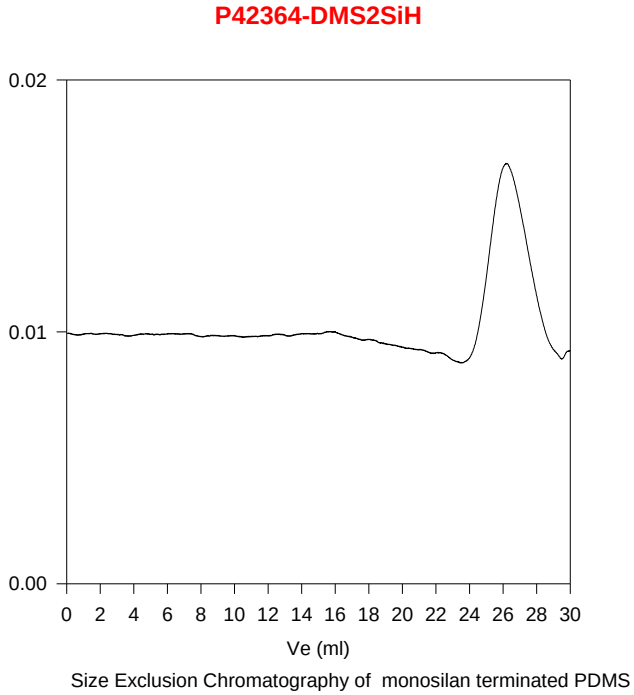
Characterization:
The molecular weight and polydispersity index of this polymer was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. The modification ratio was calculated from NMR by comparing the silane protons at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

Solubility:
The polymer is soluble in hexane, toluene, cylcohexane, THF and chloroform. It precipitates from methanol and ethanol.

H NMR spectrum of the Sample:



SEC profile of the Sample:



Size Exclusion Chromatography of monosilan terminated PDMS

M_n =2500, M_w =3.100 , PI=1.25