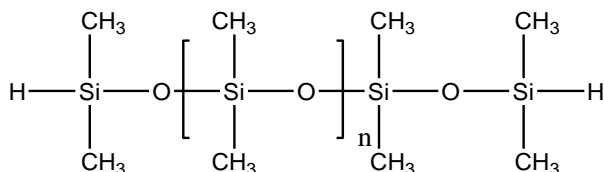


Sample Name:

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

Sample #: **P42799-DMS2SiH**

Structure:

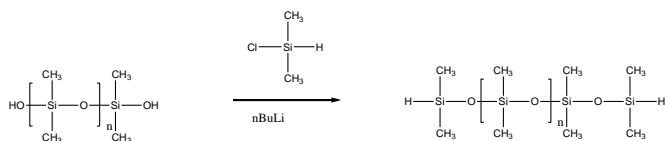


Composition:

Mn x 10 ³	PDI
0.70	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:



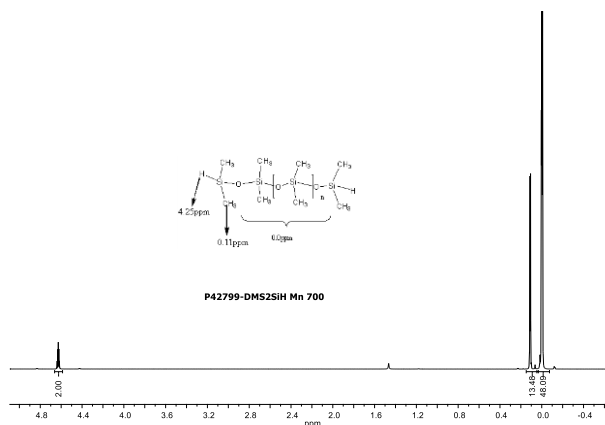
Characterization:

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:

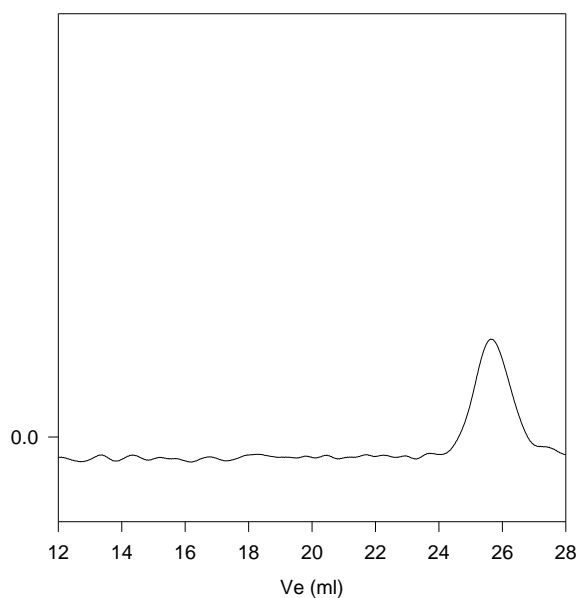
The polymer is soluble in hexane, toluene, cyclohexane, THF and chloroform. It precipitates from methanol and ethanol.

¹H NMR spectrum of the Sample:



SEC elugram of the Sample:

P42799-DMS2SiH



Size exclusion chromatography of disilane terminated dimethylsiloxane

— Polydimethylsiloxane M_n=700, M_w=800, PI=1.11