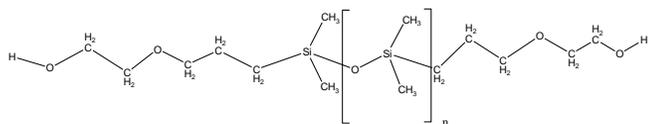


Sample Name: Poly(dimethylsiloxane), α , ω -bis (hydroxy [carbinol])-terminated

Propyl Ethoxy linker

Sample #: P42795B-DMS2OH

Structure:



Composition:

$M_n \times 10^3$	PDI
9.0	1.4

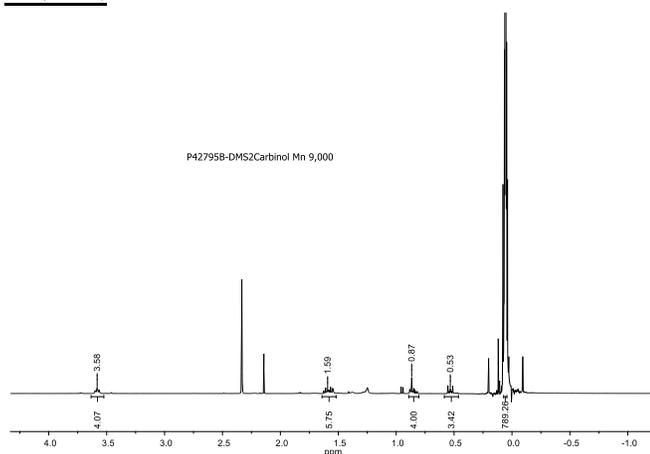
Synthesis Procedure:

Dihydroxyl (carbinol) terminated poly (dimethyl siloxane) was prepared by living anionic polymerization of hexamethyl cyclotrisiloxane. Silanol end groups were then modified to carbinol end groups.

Characterization:

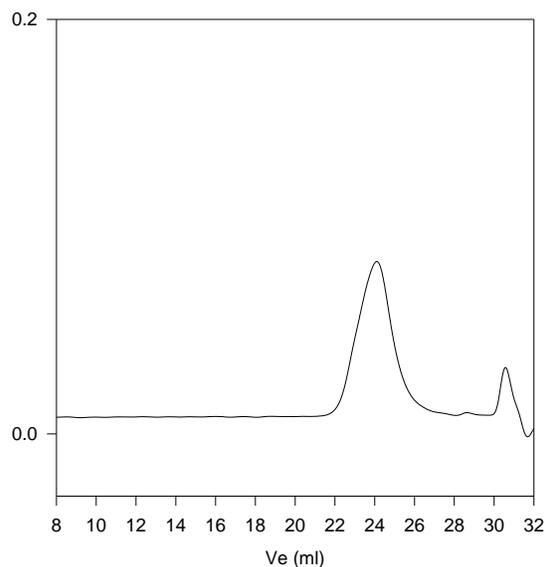
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Eluent was toluene at 35 °C.

$^1\text{H-NMR}$ spectrum of the PDMS end functionalized with Carbinol to determine molecular weights by HNMR:



SEC profile of the Sample:

P42795B-DMS2OH



Size exclusion chromatography of the polymer

— Polydimethyl siloxane dicarbinol $M_n=9,000$, $M_w=12,500$, $M_w/M_n=1.4$

Reference:

1. J.X. Zhang, S.K. Varshney, "Simple Approach for the Scale-up Production of Block Copolymer of Polydimethylsiloxane with (Meth)acrylic Ester Monomers" *Designed Monomers and Polymers*, 2002, 1, 79.