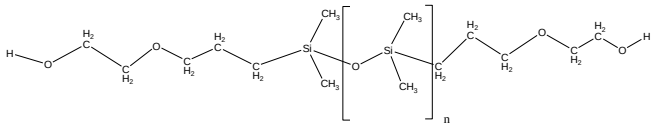
Sample Name: **Poly(dimethylsiloxane), α, ω-bis (hydroxy [carbinol])-terminated**

Propyl Ethoxy linker

Sample #: **P42797-DMS2OH**

Structure:



Composition:

Mn x 10^3	PDI
1.5	1.10

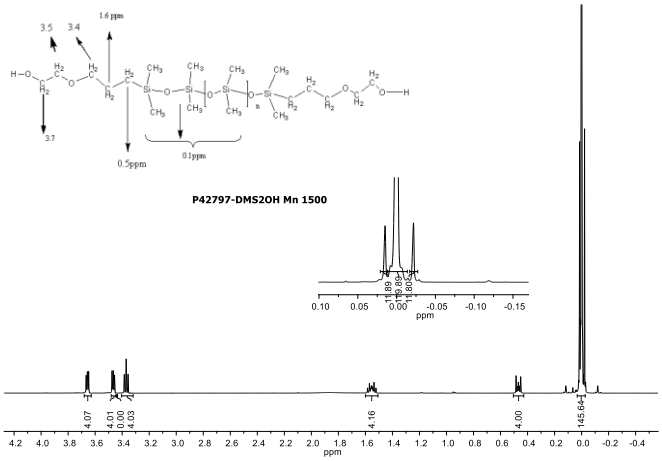
Synthesis Procedure:

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.

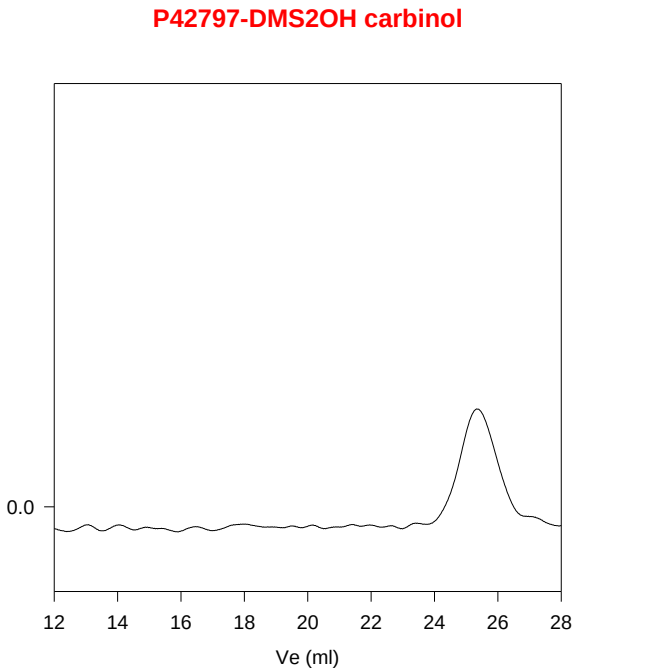
Characterization:

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}H-NMR spectrum of the PDMS end functionalized with Carbinol to determine molecular weights by HNMR:



SEC profile of the Sample:



Size exclusion chromatography of dicarinol terminated dimethylsiloxane

—— Polydimethylsiloxane M_n=1,500, M_w=1,700, PI=1.10

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.