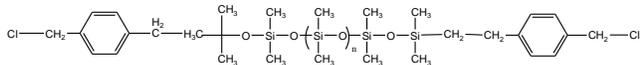


Sample Name:

**$\alpha$ - $\omega$  dibenzyl chloride terminated Poly(dimethyl siloxane)**

Sample #: P8634-DMS2BzCl

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
4.0	1.3

**Synthesis Procedure:**

$\alpha$ - $\omega$  dicarbinol terminated Poly(dimethyl siloxane) was prepared as described in our paper. This was reacted with (chloromethyl) phenylethyl dimethylchlorosilane in THF in the presence of (Et)<sub>3</sub>N. Polymer was purified after passing through the column packed with silica, eluent CHCl<sub>3</sub>.

Ref: 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

**Characterization:**

By Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 2 vol% (Et)<sub>3</sub>N as the eluent. The molecular weights were determined using light scattering detector and viscosity detector. The molecular weights and the polydispersity indice were calculated.

**Functionality:**

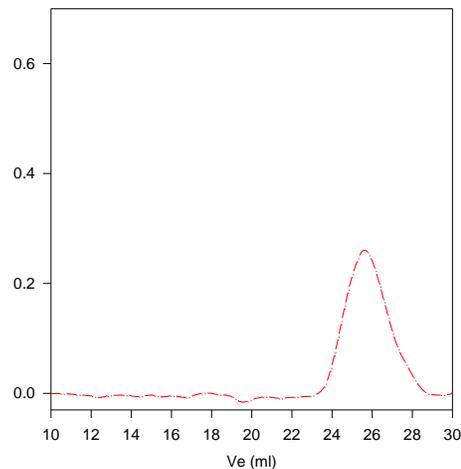
Functionality of the polymer was determined by H NMR analysis. It was found over 90% by comparing CH<sub>2</sub>-OCO at 4.3ppm with respect to the siloxane and about 85% with respect to the terminal phenyl group.

**Solubility:**

Polymer is soluble in CHCl<sub>3</sub>, THF. It is precipitated out from cold ethanol, isopropanol.

**SEC of Sample:**

**P8634-DMS2BzCl**



Size exclusion chromatography of the polymer

--- Polydimethyl siloxane di benzyl chloride terminated: M<sub>n</sub>=4000, M<sub>w</sub>=5400, Mw/Mn=1.3

**HNMR of the product:**

