

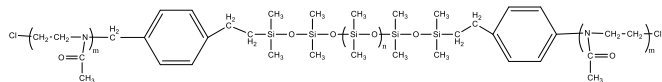
Sample Name:

**Poly(2-methyloxazoline-b-dimethylsiloxane-b-2-methyloxazoline) Triblock Copolymer**

*Linker: benzyl group in between PDMS and MEOXZ chains*

Sample #: **P43506-MEOXZDMSMEOXZ**

**Structure:**

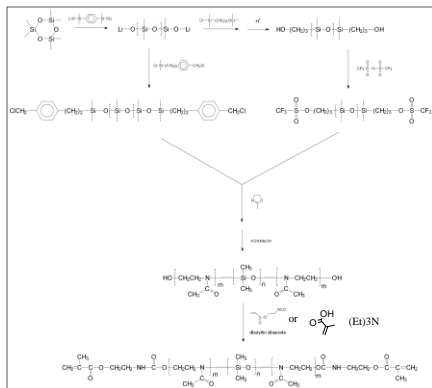


**Composition:**

Mn x 10 <sup>3</sup>	PDI
0.250-b-2.5-b-0.25	1.3
Dp of each Block: 3-b-34-b-3	

**Synthesis Procedure:**

The  $\alpha$ - $\omega$  dihydroxy terminated Poly(2-methyloxazoline-b-dimethylsiloxane-b-2-methyloxazoline) triblock copolymer was prepared by combination of anionic living polymerization of hexamethylcyclotrisiloxane (D3) and cationic polymerization of 2-methyl oxazoline, using difunctional initiator.



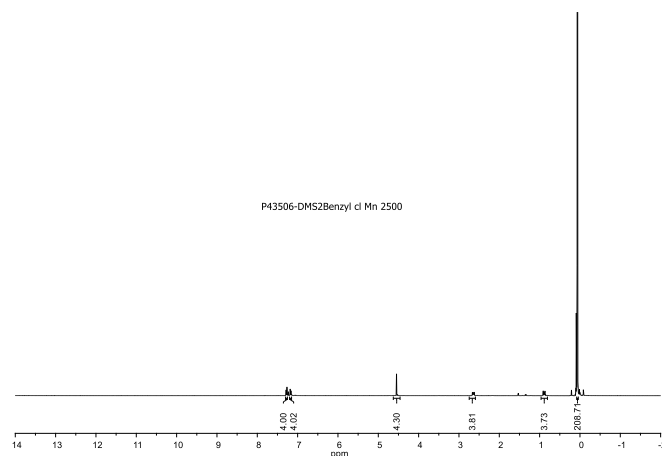
**Characterization:**

The product was characterized by <sup>1</sup>H-NMR. GPC analysis of such kind of polymer cannot be carried out in THF or DMF as solvent. We have used a mixture of DMF/THF 20/80 by volume and added 3 V% (Et)<sub>3</sub>N to elute such polymer. The values of Mw/Mn were determined, and the composition of the polymer determined by its <sup>1</sup>H-NMR.

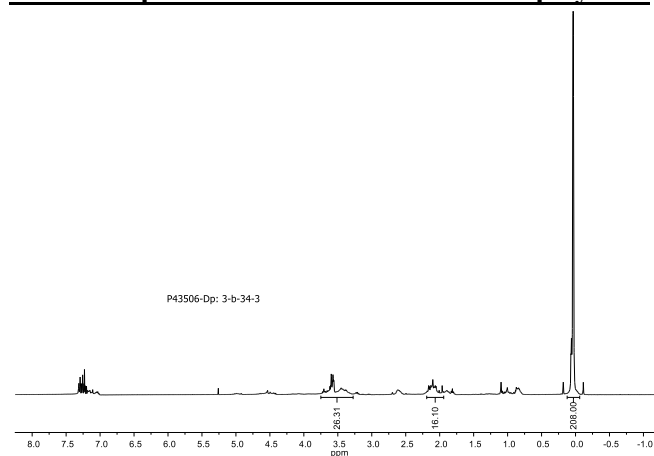
**Solubility in Different Solvents:**

1. Soluble in Methanol, CHCl<sub>3</sub>, DMF.
2. Insoluble in THF.
3. Soluble in THF-Methanol mixture.

**<sup>1</sup>H-NMR spectrum of the Benzyl end functionalized PDMS:**

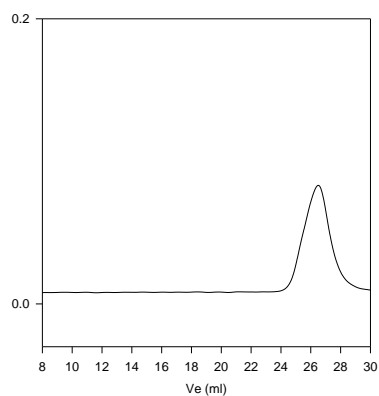


**<sup>1</sup>H-NMR spectrum of the ABA triblock copolymer:**



**SEC profile of the sample:**

**MEOXZDMSMEOXZ P43506**



Size exclusion chromatography of the polymer

— ABA triblock copolymer Mw/Mn=1.30 Composition from HNMR