

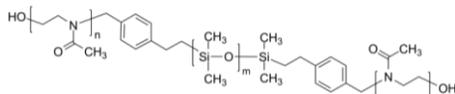
Sample Name:

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

Linker: benzyl group in between PDMS and MEOXZ chains

Sample #: P43517-MEOXZDMSMEOXZ

Structure:

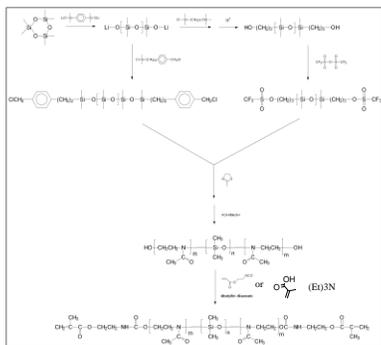


Composition:

Mn x 10 ³	PDI
0.250-b-2.5-b-0.250	1.3
Dp of each Block: 3-b-34-b-3	

Synthesis Procedure:

The α - ω 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.



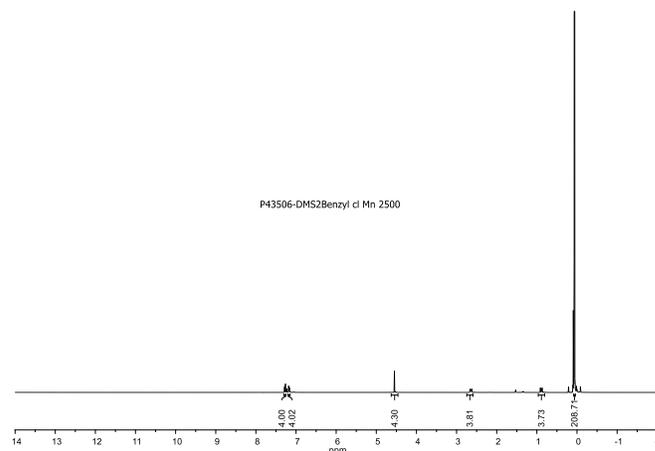
Characterization:

The product was characterized by ¹H-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)₃N to elute such polymer. The values of Mw/Mn were determined, and the composition of the polymer determined by its ¹H-NMR.

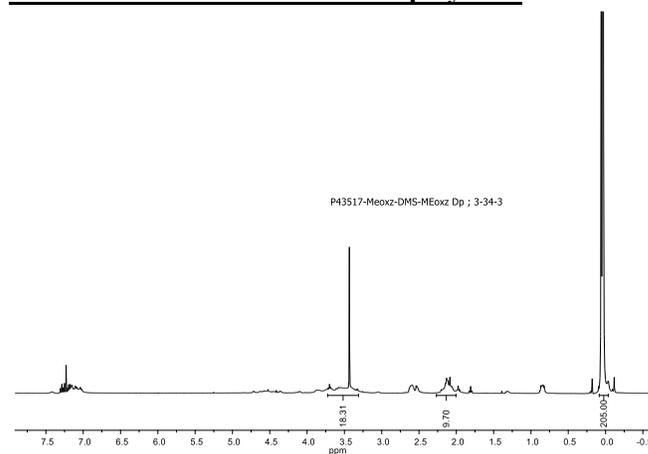
Solubility in Different Solvents:

1. Soluble in Methanol, CHCl₃, and DMF.
2. Insoluble in THF.
3. Soluble in THF-Methanol mixture.

¹H-NMR of the Benzyl end functionalized PDMS:

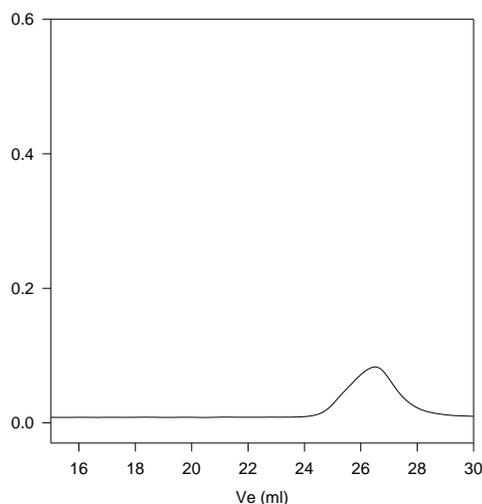


¹H-NMR of the ABA triblock copolymer:



SEC elugram of the sample:

MEOXZDMSMEOXZ P43517



Size exclusion chromatography of the polymer