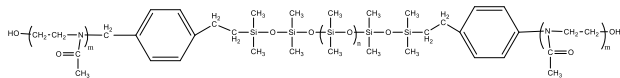


### Poly(2-methyloxazoline-b-dimethylsiloxane-b-2-methyloxazoline) Triblock Copolymer

Linker: benzyl group in between PDMS and MEOXZ chains

**Sample #: P42784-MOXZDMSMOXZ**

### Structure:

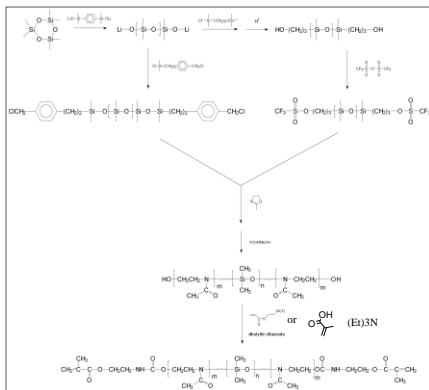


### Composition:

Mn x 10 <sup>3</sup>	PDI
1300-b-2000-b-1300 Dp: of each Block: 15-b-27-b-15	1.2

### 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.



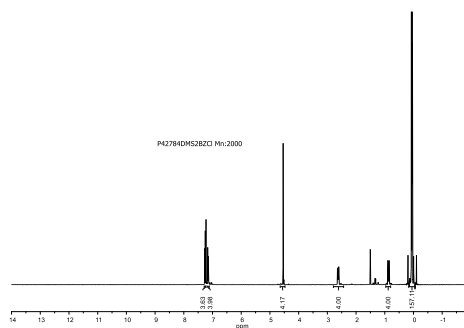
### Characterization:

The product was characterized by  $^1\text{H}$ -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) $_3\text{N}$  to elute such polymer. The values of  $M_w/M_n$  were determined, and the composition of the polymer determined by its  $^1\text{H}$ -NMR.

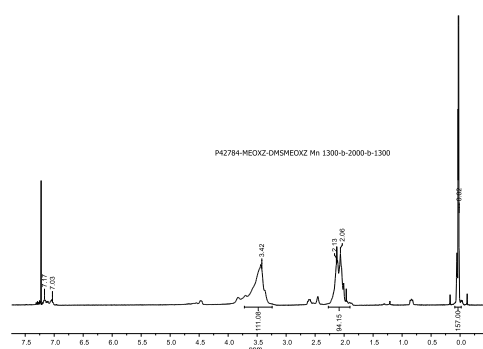
### Solubility in Different Solvents:

1. Soluble in Methanol,  $\text{CHCl}_3$ , DMF.
2. Insoluble in THF.
3. Soluble in THF-Methanol mixture.

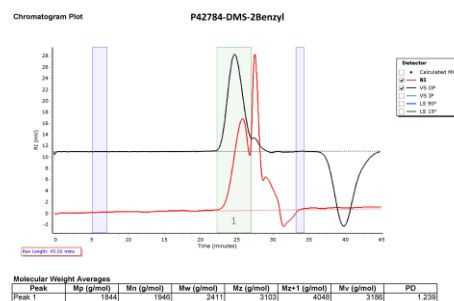
### **<sup>1</sup>H-NMR of the Benzyl end functionalized PDMS:**



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



**SEC elugram of PDMS-2 Benzyl Sample:**



**SEC elugram of the sample:**

