

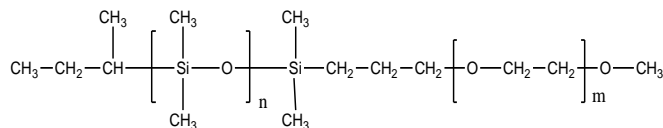
# Product Profile

## Identification

**Product Name:** Poly(dimethyl siloxane-b-ethylene oxide)

**Product Lot Number:** P45220-DMSEO

## Product Chemical Architecture:



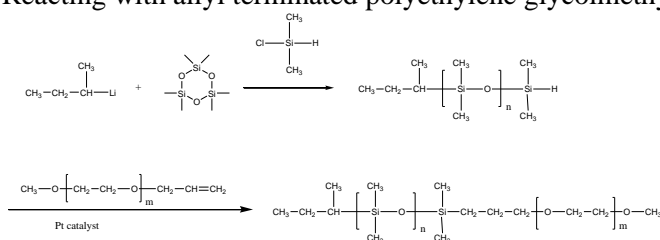
## Composition:

Mn x 10 <sup>3</sup> DMS-b-EO	Mw/Mn (PDI)
2.0-b-0.8	1.15
Dp of each block: DMS <sub>27</sub> EO <sub>18</sub> from <sup>1</sup> H NMR	

## Method of Synthesis

The polymer is synthesized by anionic polymerization using sec Butyl-lithium as initiator in 2 steps synthesis.

- Synthesis of silane terminated poly dimethyl siloxane and
- Reacting with allyl terminated polyethylene glycolmethylether:



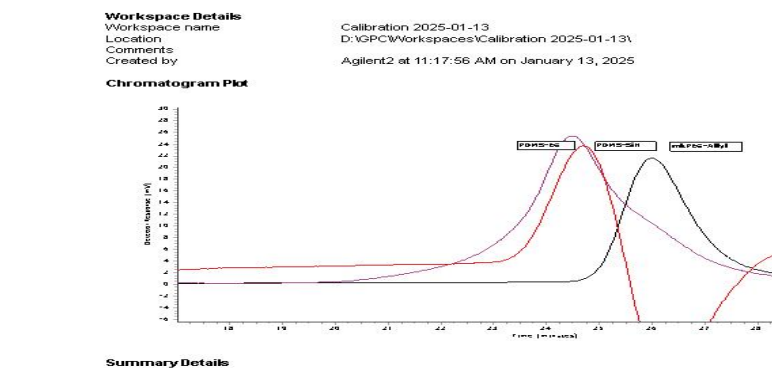
## Solubility in different solvents

THF	✓		
CHCl <sub>3</sub>	✓		
Toluene-Hot	✓		

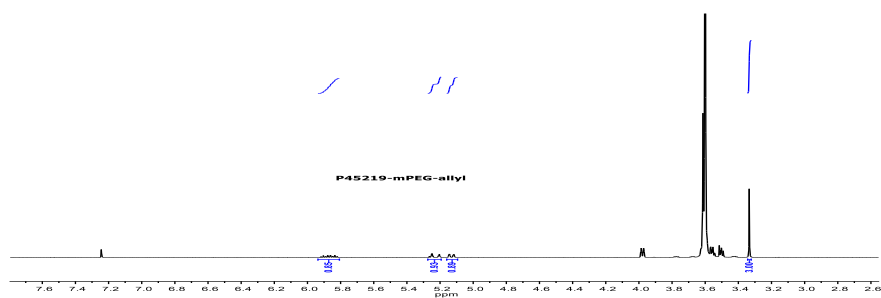
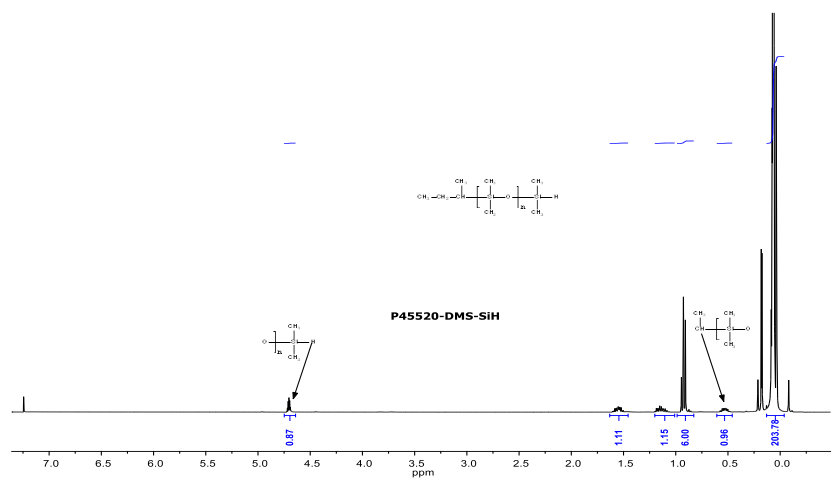
**Purification of Polymer:** to remove naphthalene and other catalyst used < 0.1% level.

## Validation of Architecture

### A. Gel Permeation Chromatography (GPC), SEC- Profile for PDMSEO:



**B. H-NMR spectrum of the product PDMS-SiH Mn 2000**



**C. NMR (HNMR) of Poly dimethylsiloxane -b-Ethylene Oxide:**

