

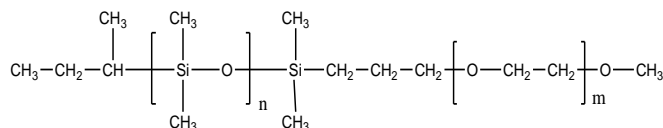
Product Profile

Identification

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

Product Lot Number: P45209-DMSEO

Product Chemical Architecture:



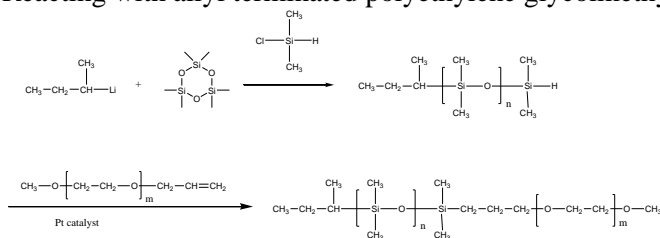
Composition:

Mn x 10 ³ DMS-b-EO	Mw/Mn (PDI)
0.9-b-0.8	1.08
Dp of each block: DMS ₁₂ EO ₁₈ from ¹ 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:



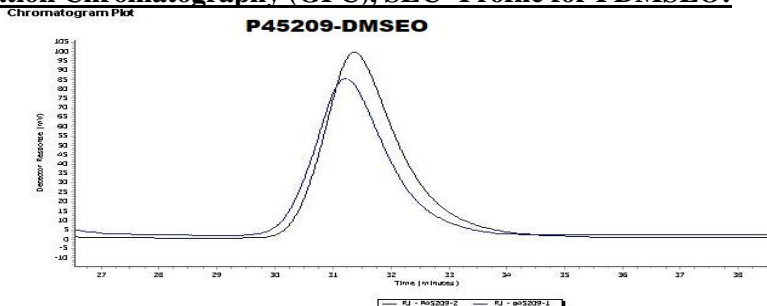
Solubility in different solvents

THF	✓		
CHCl ₃	✓		
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. NMR (HNMR) of Poly dimethylsiloxane -b-Ethylene Oxide:
C. H-NMR spectrum of the product PDMS-SiH Mn 900

