

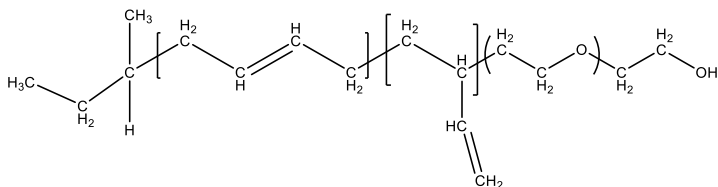
Product Profile

Identification

Product Name: Poly(1,2-butadiene)-b-poly(ethylene oxide)

Product Lot Number: P41807R-BdEO

Product Chemical Architecture:



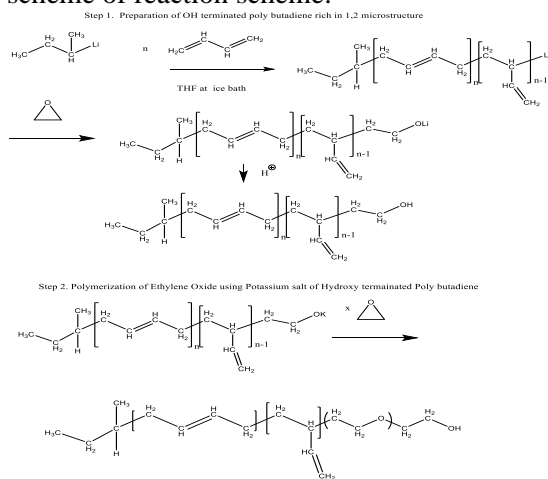
Composition:

Mn x 10 ³ Bd-b-EO	Mw/Mn (PDI)	% 1,2 addition Butadiene
1.2-0.4	1.01	>85.0
Dp of each block: Bd ₂₆ EO ₉ 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 Hydroxyl end terminated poly butadiene and
- Polymerization of ethylene oxide using potassium salt of poly butadiene, see the following scheme of reaction scheme:



Solubility in different solvents

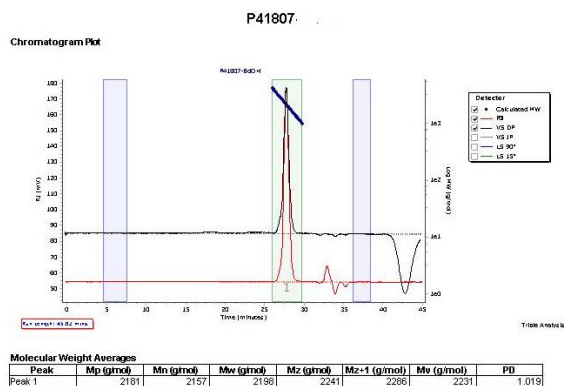
THF	✓		
CHCl ₃	✓	CHCl ₃	✓
Toluene-Hot	✓		

Purification of Polymer to remove naphthalene < 0.1% level.

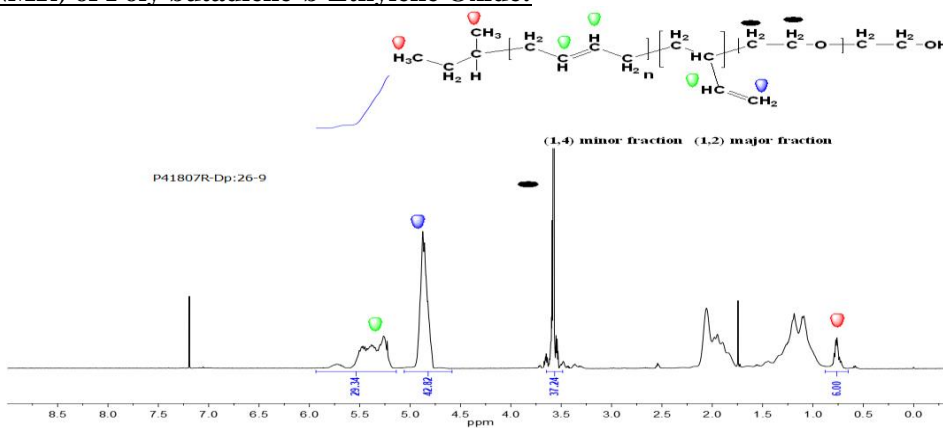
Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC- Profile for PBd-EO:

Agilent GPC/SEC Software



B. NMR (HNMR) of Poly butadiene-b-Ethylene Oxide:



P41807R-Dp:26-9

