

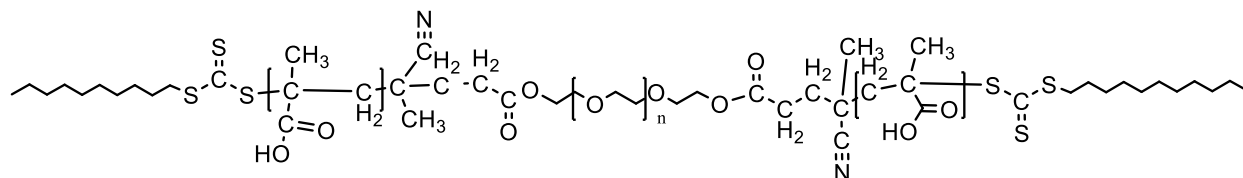
# Product Profile

## Identification

**Product Name:** Poly(methacrylic acid)-b-poly(ethylene oxide)-b-poly(methacrylic acid)

**Product Lot Number:** P44569B-MAAEOMAA

**Product Chemical Architecture:**



**Composition:**

MAA-EO-MAA Mn * 10 <sup>3</sup> (g/mol)	Mw/Mn (PDI)
3.5-b-4.0-b-3.5	1.18
Dp of each block: MAA <sub>40</sub> -EO <sub>91</sub> -MAA <sub>40</sub> from <sup>1</sup> H NMR	

## Method of Synthesis

The polymer is synthesized by RAFT polymerization process.

**Solubility in different solvents**

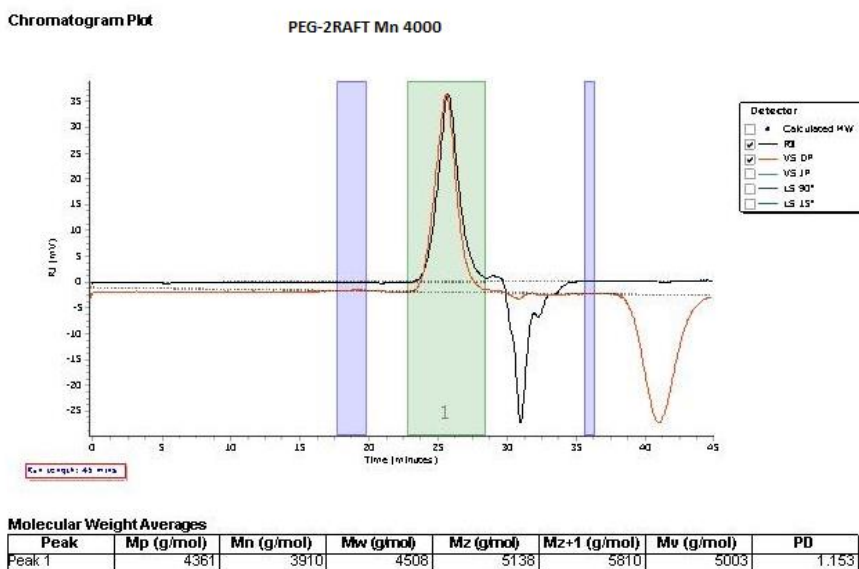
THF	✓	DMF	✓
CHCl <sub>3</sub>	X	CHCl <sub>3</sub>	X
Water	X	Water-pH 7-9	✓

## Purification of Polymer

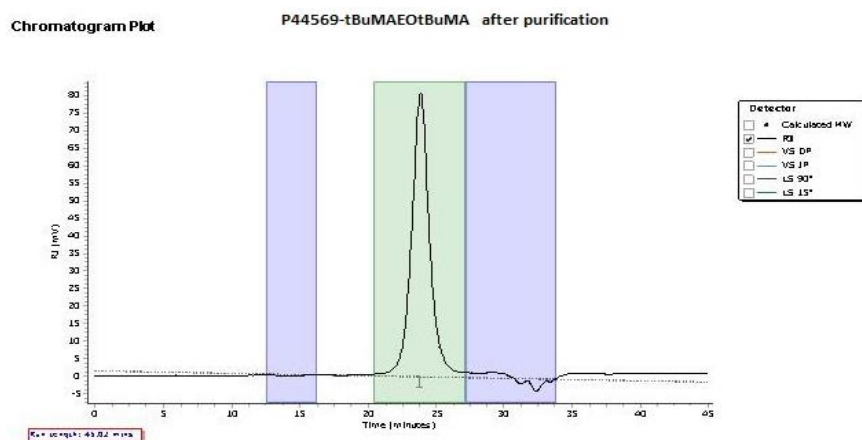
The polymer has been purified to remove unreacted PEG by stirring in Hot Water.

## Validation of Architecture

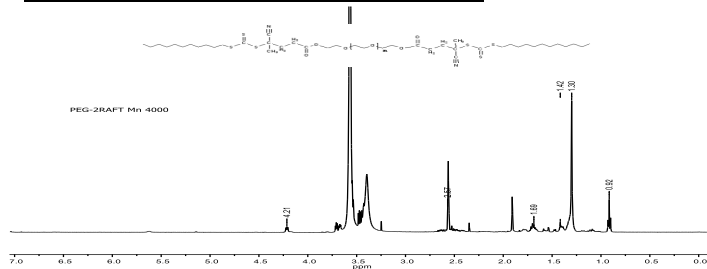
**A. Gel Permeation Chromatography (GPC), SEC- PEG**



**B. SEC of Poly tBuMA-b-Ethylene Oxide-tBuMA:**



**C. HNMR spectrum of PEG- $\alpha$ - $\omega$ -RAFT:**



**D. HNMR spectrum of PMAA-b-EO-PMAA run in DMSO:**

