

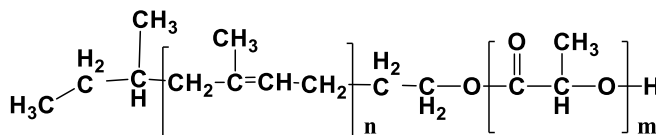
# Product Profile

## Identification

**Product Name:** Poly(1,4-butadiene)-b-poly(lactide)

**Sample #:** P44654F3-BdLA (D form)

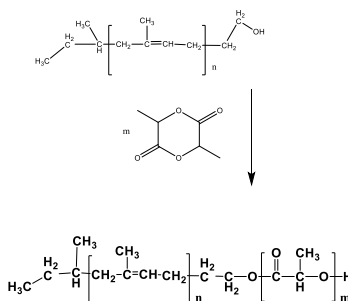
## Product Chemical Architecture:



## Composition:

Mn x 10 <sup>3</sup> Bd-b-LA	Mw/Mn (PDI)
13.5-b-29.0	1.5
1,4 rich for Poly butadiene block	
Microstructure of Polymer by <sup>1</sup> H NMR	

## Method of Synthesis:



## Solubility in different solvents

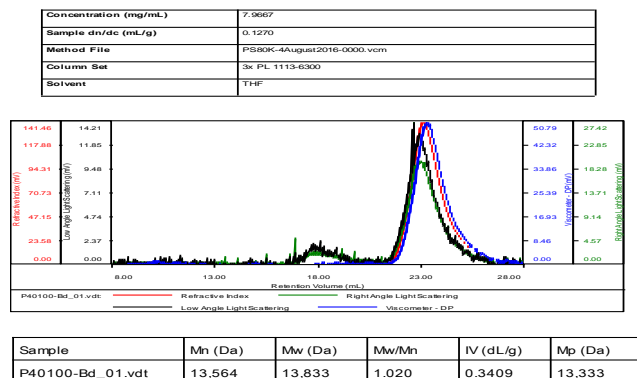
THF	✓		
CHCl <sub>3</sub>	✓		
Toluene-Hot	X		

**Purification of Polymer :** By Soxhlet in Hexane

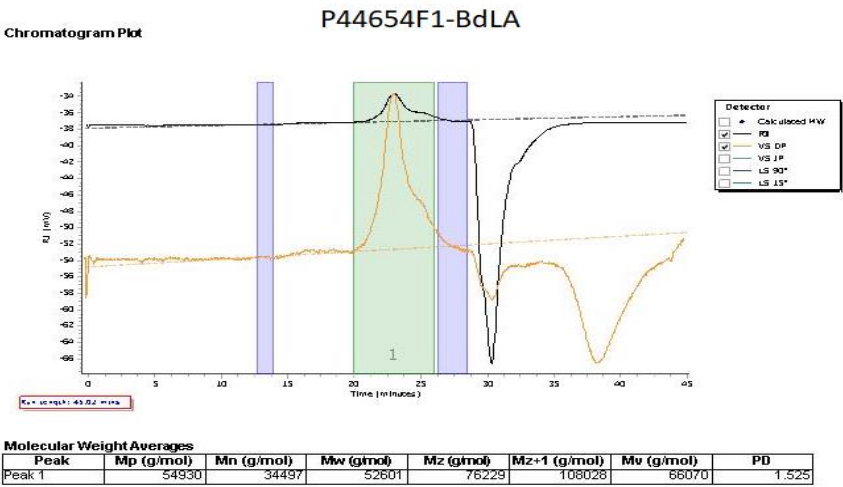
## Validation of Architecture:

### A. Gel Permeation Chromatography (GPC), SEC- Profile and <sup>1</sup>H NMR spectrum of the polymer PBd-OH used in the process:

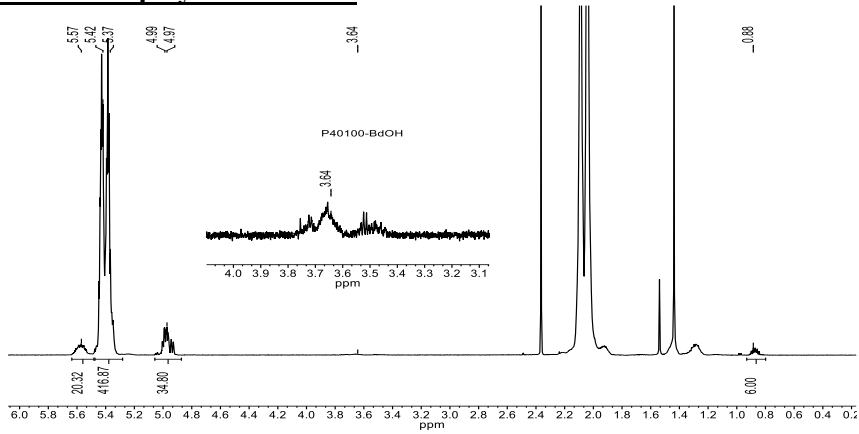
Sample ID: P40100-BdOH



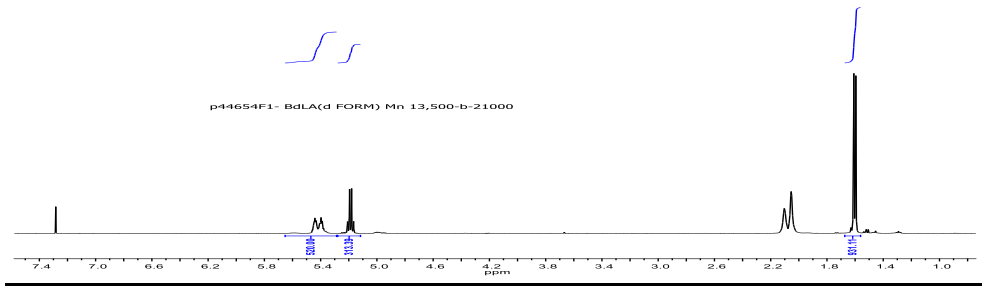
Poly bd-b-LA (D) form



B. <sup>1</sup>H NMR spectrum of the polymer of BdOH

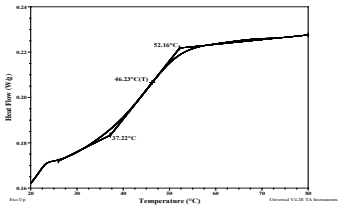


C. NMR (HNMR) of polymer



D. Thermal analysis profile of polymer

Thermogram for PLA block



For Bd block (1,4 addition)		
T <sub>g</sub> : Not found	T <sub>m</sub> : -	T <sub>c</sub> : -
For LA block		
T <sub>g</sub> : 46°C	T <sub>m</sub> : 165°C	T <sub>c</sub> : -