

# Product Profile

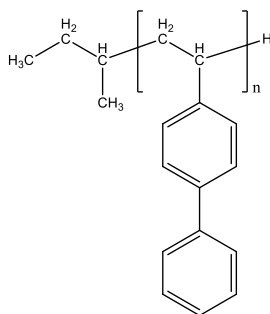
## Identification

**Product Name:** POLY(4-VINYL BIPHENYL)

**Product Lot Number:** P19853-R-4VBP

CAS: 25232-08-0

**Product Chemical Architecture:**



## Composition:

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)	dn/dc (mg/mL) in THF
375.0	1.10	0.184

**Method of Synthesis** By anionic process.

## Solubility in different solvents

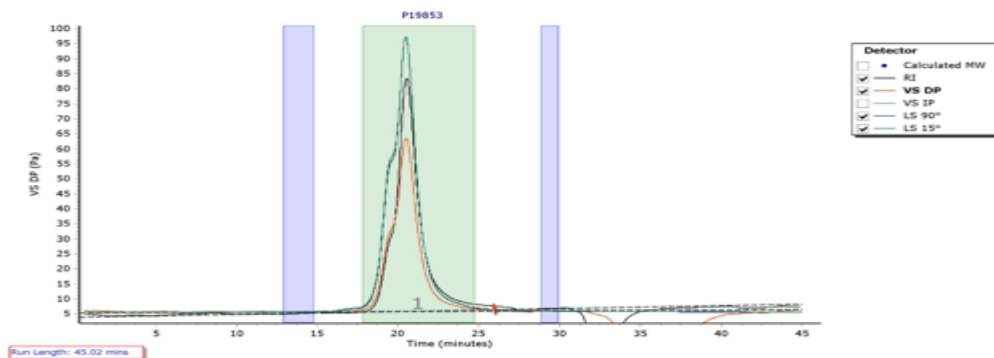
THF	✓		
CHCl <sub>3</sub>	✓	CHCl <sub>3</sub>	✓
Toluene	✓		

## Validation of Architecture:

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

**P19853**

Chromatogram Plot

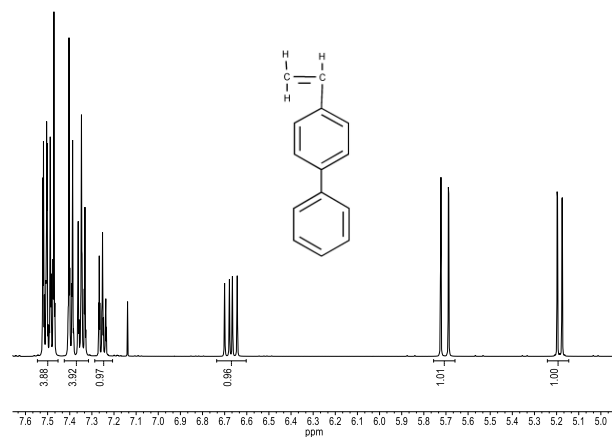


Molecular Weight Averages

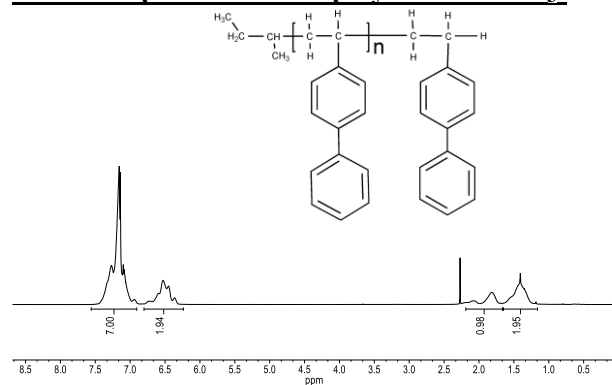
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	420487	375411	413879	446140	475473	441319	1.102

**B. <sup>1</sup>H NMR spectrum in CDCl<sub>3</sub>:**

**<sup>1</sup>H NMR spectrum of the monomer in CDCl<sub>3</sub>:**



**<sup>1</sup>H NMR spectrum of the polymer in CDCl<sub>3</sub>:**



**C. Thermal analysis profile of polymers**

**DSC data for poly 4VBP polymers of different molecular weights**

Molecular weight (Mn)	Glass transition (T <sub>g</sub> )
$9.5 \times 10^3$	105 °C
$30.0 \times 10^3$	135 °C
$75.5 \times 10^3$	141 °C
$530.0 \times 10^3$	151 °C