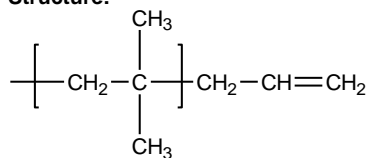


Sample Name:
Olefinic Vinyl Terminated Polyisobutylene

Sample #: **P6481 A-IbV**

Structure:

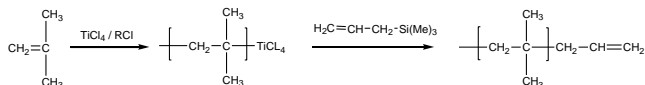


Composition:

| | |
|----------------------|-----|
| Mn x 10 ³ | PDI |
| 0.5 | 1.5 |

Synthesis Procedure:

Vinyl (olefinic) terminated polyisobutylene was prepared by cationic living polymerization of isobutylene. The polymerization reaction was terminated with allyltrimethylsilane. The scheme of the reaction is illustrated below:



Characterization:

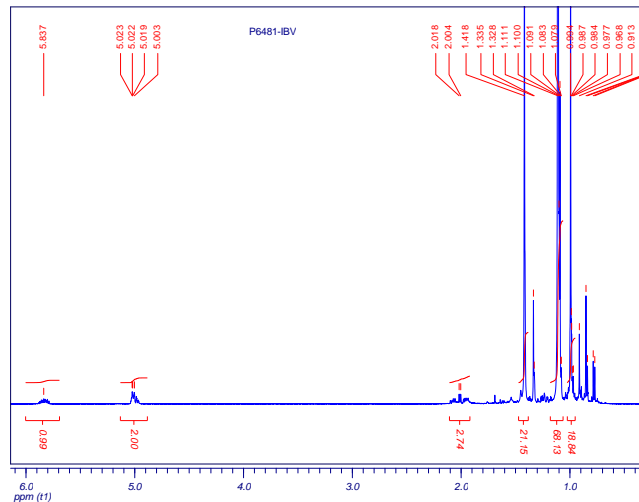
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

Functionality: The polymer's functionality was determined by ^1H -NMR spectroscopy.

Solubility:

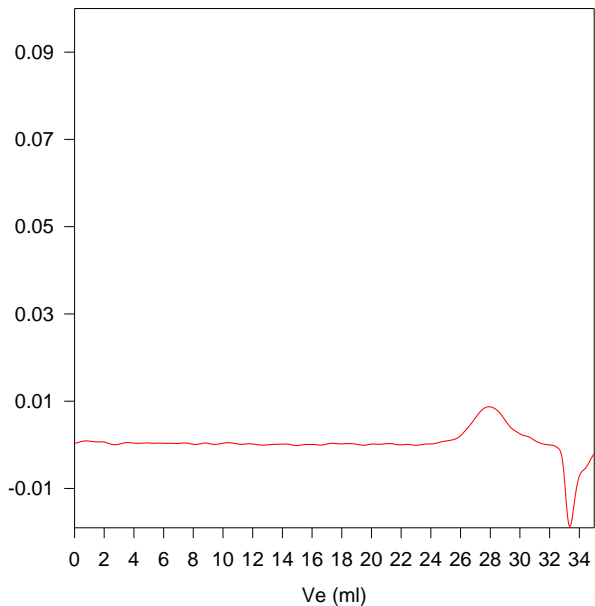
The polymer is soluble in THF, CHCl_3 , toluene, hexane, and can be precipitated from methanol, acetone, ethanol, water.

NMR spectrum of the sample:



SEC of Sample:

P6481A-IBV



Size exclusion chromatography of allyl terminated polyisobutylene:

$$M_n=500, \quad M_w=750, \quad M_w/M_n=1.5$$