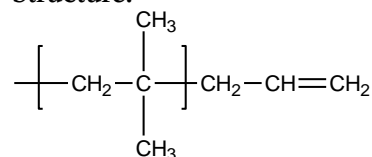


Sample Name:
Olefinic Vinyl Terminated Polyisobutylene

Sample #: **P18905-IbV**

Structure:

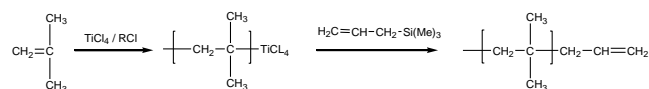


Composition:

Mn x 10 ³	PDI
1.6	1.25

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.

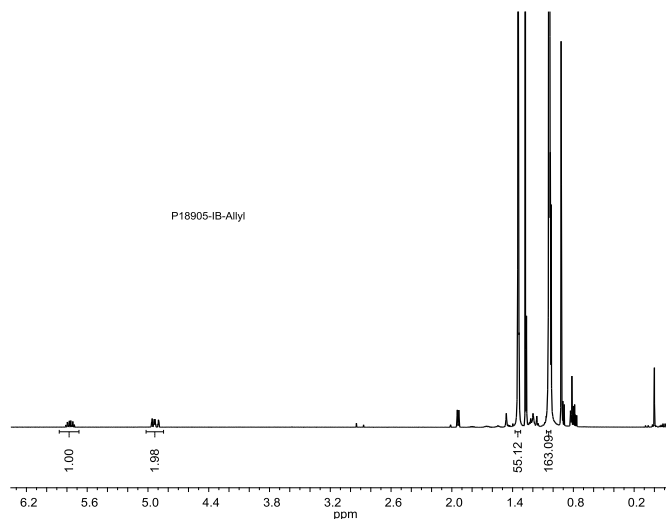
Functionality:

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

Solubility:

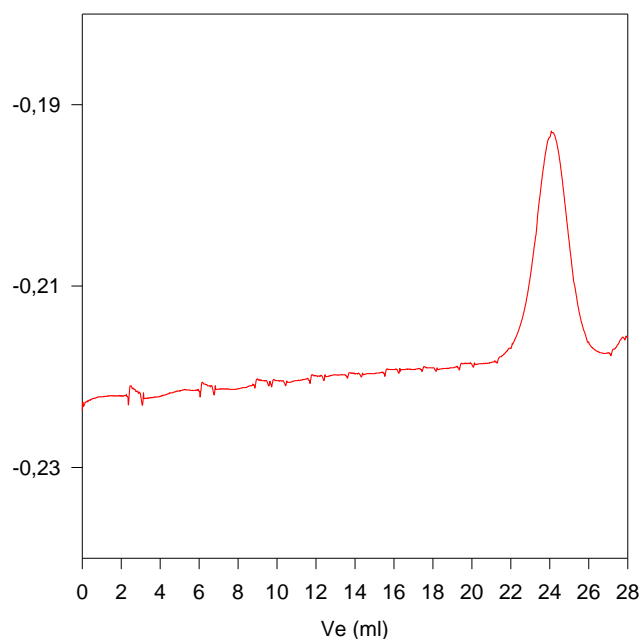
The polymer is soluble in THF, CHCl₃, toluene, hexane, acetone and can be precipitated from methanol, ethanol, water.

NMR spectrum of the sample:



SEC of Sample:

P18905-IB-allyl



Size exclusion chromatography of allyl terminated polyisobutylene:

$$M_n = 1,600, \quad M_w = 2,000, \quad M_w/M_n = 1.25$$