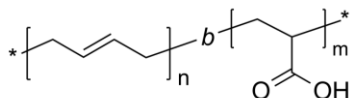


Sample Name:
Poly(1,4-butadiene)-b-poly(acrylic acid)

Sample #: P43624A-BdAA

Structure:



Composition:

Mn x 10 ³ PBd-b-AA	Mw/Mn (PDI)
104.0-b-14.0	1.25

T_g for tBuA block (°C): 18 °C
T_g for 1,4 Bd block (°C): Not distinct

1, 4 addition: 60%

Synthesis Procedure:

Poly(1,4-butadiene-b-t-butyl acrylate) is prepared by living anionic polymerization with sequence addition of butadiene followed by t-butyl acrylate.

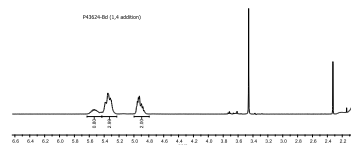
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR data analysis.

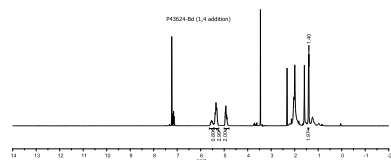
Solubility:

Polymer is soluble in THF, CHCl₃, dioxane and benzene.

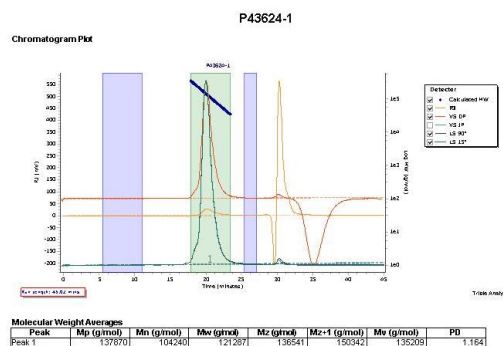
HNMR Spectrum of the Bd block:



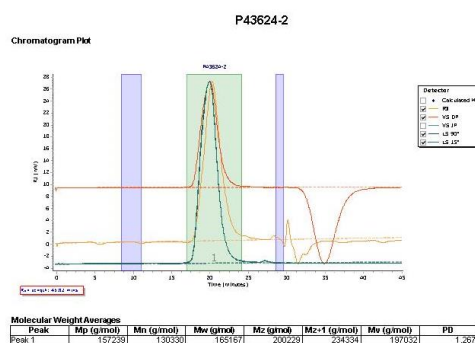
HNMR spectrum of Block Copolymer:



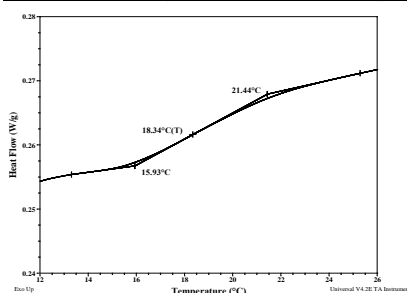
SEC elugram of the Bd block:



SEC elugram of the block copolymer:



DSC thermogram for the sample:



References for further information:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.
3. Ph. Teyssie, R. Fayt, J. P. Hautekeer, C. Jacobs, R. Jerome, L. Leemans and S. K. Varshney *Makromolekulare Chemie, Macromol. Symp.*, 1990, 32,61-73.
4. S. K. Varshney, J. P. Hautekeer, R. Fayt, R. Jerome, and Ph.Teyssie *Macromolecules*, 1990, 23, 2618-2622.

