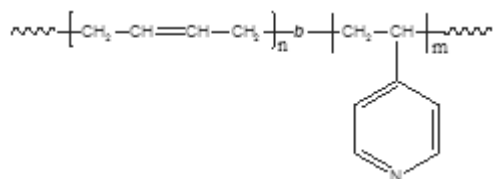


Sample Name:

Poly(1,4-butadiene-b-4-vinyl pyridine)

Sample #: **P18947-Bd4VP**

Structure:



Composition:

Mn x 10 ³ Bd-b-4VP	Mw/Mn (PDI)
220.0-b-18.0	1.07
T _g for Bd block: -72°C	T _g for 4VP block: 83°C

Synthesis procedure:

Poly(1,4-butadiene-b-4-vinyl pyridine) was prepared by living anionic polymerization with sequence addition of butadiene followed by 4-vinyl pyridine.

Characterization:

By SEC and by titration: to determine composition of P4VP block. By ¹H NMR in CDCl₃: to estimate P4VP contents.

Thermal Analysis:

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) of the sample has been considered.

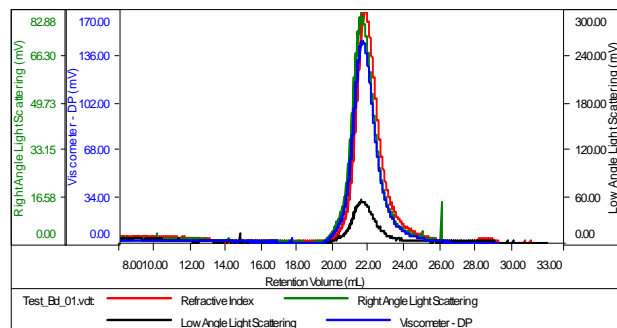
Solubility:

Poly(1,4-butadiene-b-4-vinyl pyridine) is soluble in THF, chloroform and toluene. The polymer is insoluble in DMF.

SEC elugram of polybutadiene:

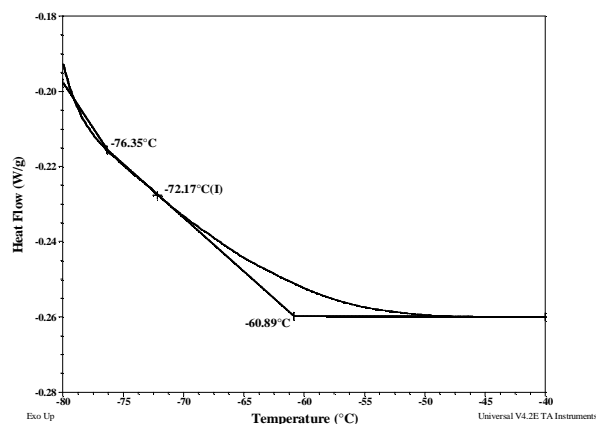
Sample ID: P18947-Bd first block

Concentration (mg/mL)	2.7217
Sample dn/dc (mL/g)	0.1190
Method File	PS80K-1028-2014-0000.vom
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
Test_Bd_01.vcl	219,610	235,396	225,209	1.072	1.8687

DSC thermogram for Bd block:



Thermogram for 4VP block:

