

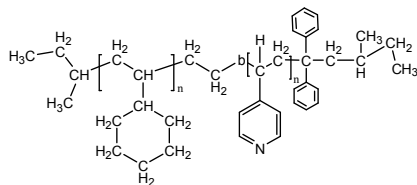
Sample Name:

Poly Vinyl Cyclohexane-b-4Vinylpyridine

Synonym: Poly Cyclohexyl ethylene-b-4Vinylpyridine

Sample #: **P40367-VCH4VP**

Structure:

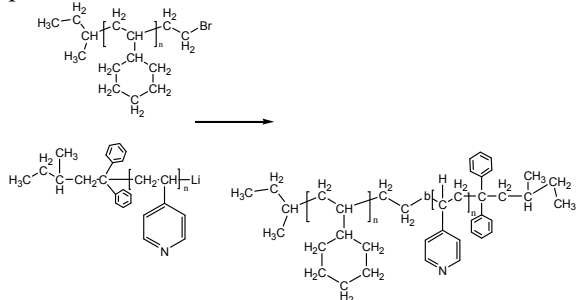


Composition:

Mn x 10 ³	PDI
12.5-b-3.0	1.10
T _g (°C)	131.0 oC

Synthesis Procedure:

The polymer was synthesized by anionic polymerization process.



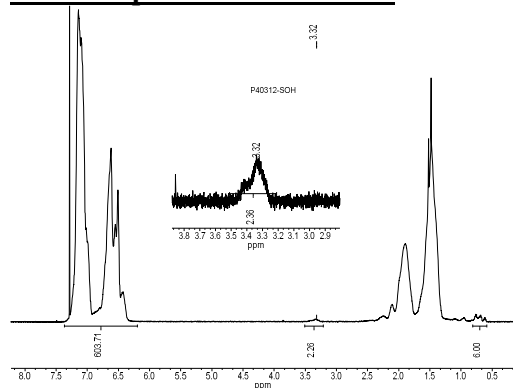
Characterization:

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

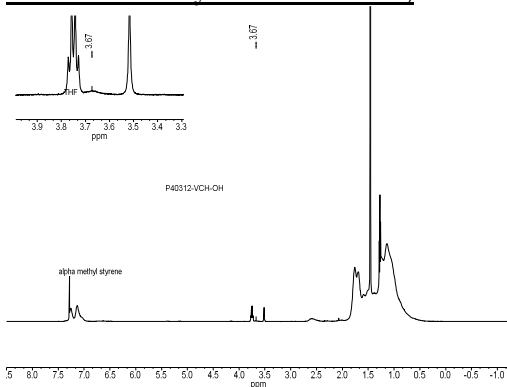
Solubility:

Polymer is soluble in toluene (not clear solution), THF, CHCl₃ and is not soluble in Methanol, and DMF.

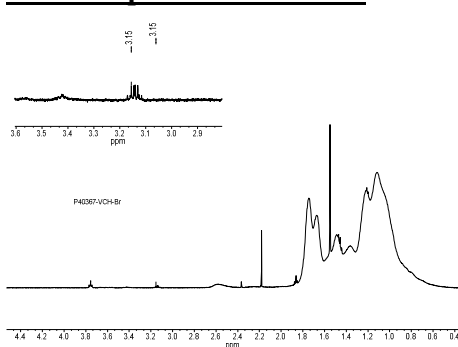
1H NMR spectrum of the S-OH



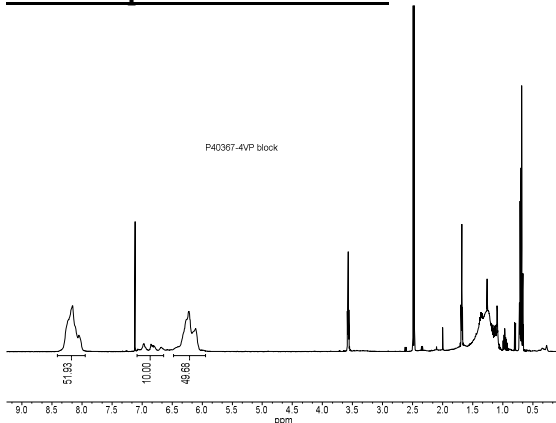
1HNMR of Polymer PVCH-OH;



1HNMR spectrum PVCH-Br

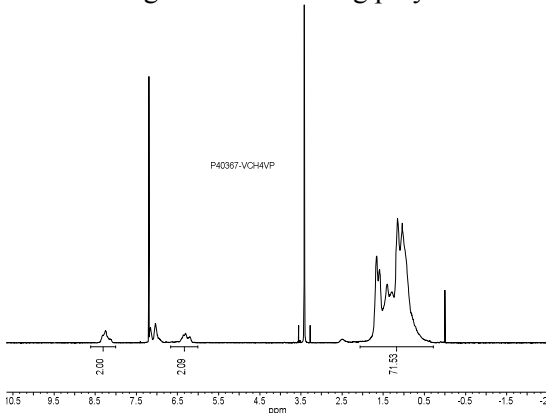


1HNMR spectrum P4VP block



1HNMR spectrum of the PVCH-4VP:

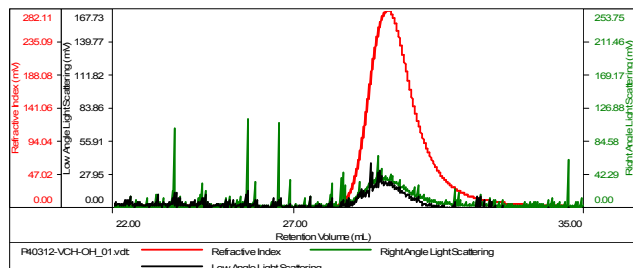
After linking reaction of living polymer:



SEC elugram of PVCH before attaching 4VP block

P40312-VCH-OH

Concentration (mg/mL)	8.5194
Sample dn/dc (mL/g)	0.1300
Method File	PS80<Nb/2016-6-0000.vcm
Column Set	3x PL 1113-6000
Solvent	THF

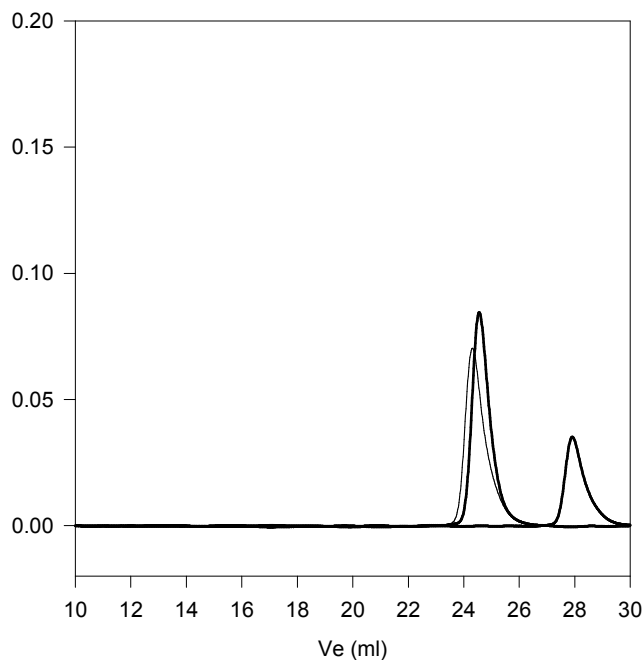


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40312-VCH-OH_01.v	12,304	12,934	1.051	0.1575	12,815

SEC elugram of PVCH4VP:

Elution : THF containing 4/v/v(Et)₃N and Solution of polymer containing a drop of DMF to avoid adsorption of polymer with columns packing material

P40367-VCH4VP



- Poly(VCH): $M_n=12,500$, $M_w=13,000$, $M_w/M_n=1.05$
 - Poly 4VP Block : M_n 3,000 M_w/M_n 1.10,
 - Block Copolymer PVCH(12,500)-b-4VP(3,000), $M_w/M_n=1.10$
- Compositions from HNMR

DSC thermogram for the sample:

Sample: P40367-VCH4VP
Size: 4.5000 mg

DSC

File: P40367-VCH4VP.001

