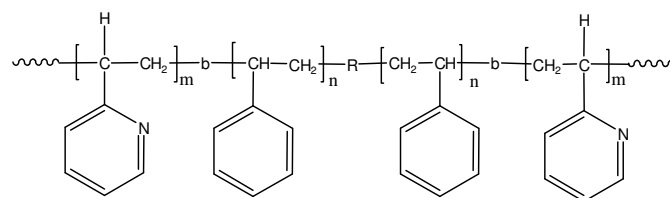


Sample Name: Poly(2-vinyl pyridine-b-styrene-b-2-vinyl pyridine)

Sample #: P18763-2VPS2VP

Structure:



R: dimer or tetramer of alpha methyl styrene

Composition:

Mn x 10 ³ 2VP-b-PS-b-2VP	PDI
7.0-b-3.5-b-7.0	1.14
T _g for PS block: 90 oC	

Synthesis Procedure:

Poly(2-vinyl pyridine-b-styrene-b-2-vinyl pyridine) is prepared by living anionic polymerization using a bifunctional initiator with sequence addition of styrene followed by 2-vinylpyridine (2VP).

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. THF was an eluent.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

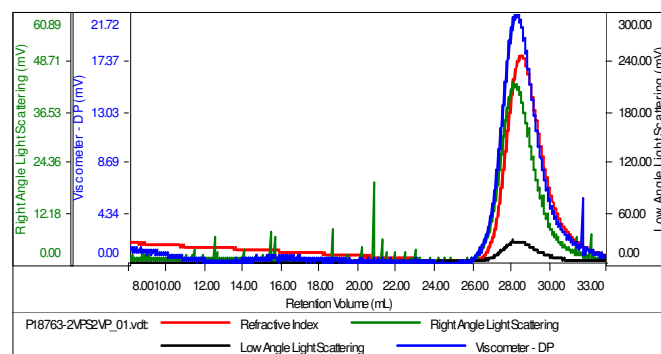
Solubility:

Poly(2-vinyl pyridine-styrene-b-2-vinyl pyridine) is soluble in DMF, THF, CHCl₃. The polymer readily precipitates from hexanes and diethyl ether.

SEC of the polymer:

Sample ID: P18763-2VPS2VP

Concentration (mg/mL)	17.9363
Sample dn/dc (mL/g)	0.1680
Method File	PS80K-NDV-2014-0003.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)
P18763-2VPS2VP_01.vdt	17,441	19,860	19,813	1.139	0.0666

¹H NMR:

