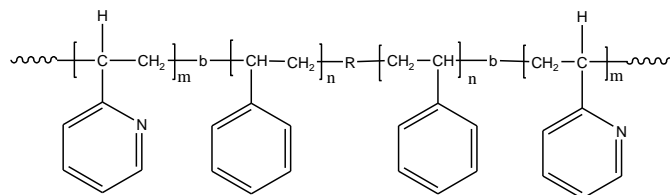


**Sample Name:** Poly(2-vinyl pyridine-b-styrene-b-2-vinyl pyridine)

**Sample #:** P10872-2VPS2VP

**Structure:**



R: dimer or tetramer of alpha methyl styrene

**Composition:**

Mn x 10 <sup>3</sup>	PDI
2VP-b-PS-b-2VP	
12.0-b-23.0-b-12.0	1.25
T <sub>g</sub> for PS block: 102°C	

### 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:

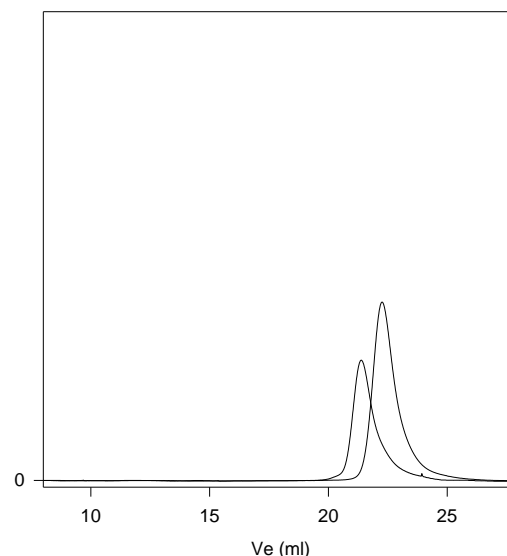
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

### Solubility:

Poly(2-vinyl pyridine-styrene-b-2-vinyl pyridine) is soluble in DMF, THF, CHCl<sub>3</sub>. The polymer readily precipitates from hexanes and diethyl ether.

### SEC of the polymer:

**P10872-2VPS2VP**



Size exclusion chromatography of:  
Poly(2 vinyl pyridine-b-Styrene-b-2 vinylpyridine)

— Poly(Styrene), M<sub>n</sub>=23,000, PI=1.20

— Triblock Copolymer P 2VP(12,000)-b-PS(23,000)-b-P2VP(12,000) PI=1.25  
Chemical composition from <sup>1</sup>H NMR and by titration (average value)

### <sup>1</sup>H NMR:

