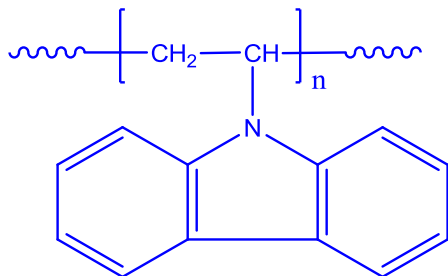


Sample Name:
Poly(N-vinyl carbazole)

Sample #: P8972-VK
Structure:

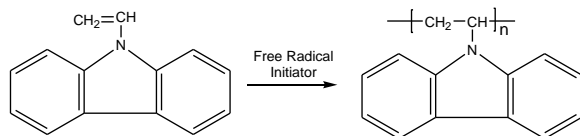


Composition:

$M_w \times 10^3$	PDI
712.0	2.0
$T_g (^{\circ}C)$	178

Synthesis Procedure:

Poly(N-vinyl carbazole) is obtained by free radical polymerization of N-vinyl carbazole and the reaction scheme is shown below.



Characterization:

The molecular weight and polydispersity index (PDI) of Poly(N-vinyl carbazole) are obtained by size exclusion chromatography with light scattering detector on-line.

Thermal analysis:

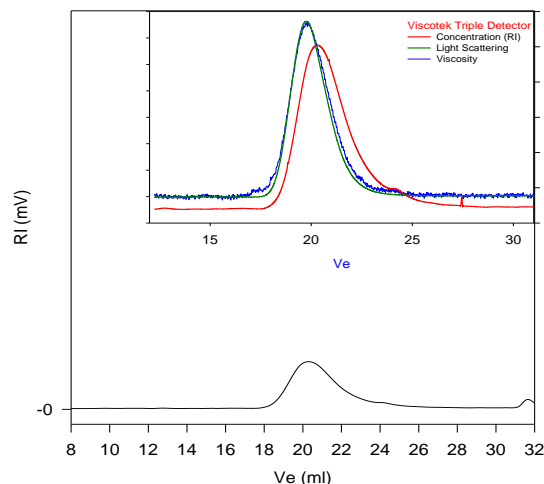
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}C/min$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Poly(N-vinyl carbazole) is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer:

P8972-VK



Size Exclusion Chromatography of Poly(N-vinyl carbazole)

$M_w = 712,000$, $M_n = 356,000$, $M_w/M_n = 2.0$
Solution Viscosity in THF at $30^{\circ}C$: $[\eta] = 1.19$ dl/g
 dn/dc in THF: 0.225 ml/g
 $R_g = 27.3$ nm

DSC thermogram for the polymer:

