

Product Profile

Identification

Product Name: Poly(styrene-b-4-vinyl-pyridine)

Product Lot Number: P10892-R-S4VP

CAS #: 26222-40-2

Product Chemical Architecture:



Composition:

Composition (S-b-4VP)	342,000-b-37,000
4VP mole%	9.8
Mn (g/mole)	379,000
Mw (g/mole)	373,000
Mw/Mn	1.02
dn/dc (mL/g) in DMF at 35 °C	0.164

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

Solubility in different solvents:

Solvent	Depends on composition	Solvent	✓
THF	Depends on composition	DMF	✓
Alcohol	Depends on composition	CHCl ₃	✓
Toluene _(hot)	X	Water	X

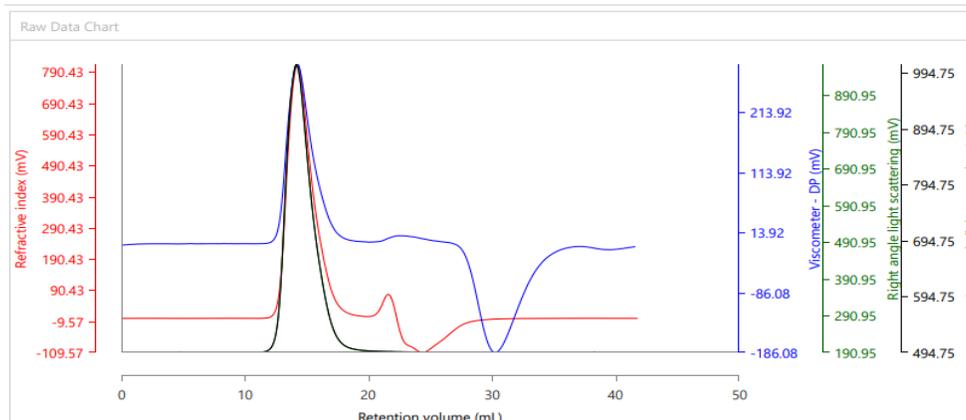
Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC Profile:

Molecular weights were determined by Malvern OmniSec Reveal & Resolve GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LALS 7°) and two columns (PSS, SDV, 8x300 mm). DMF with 0.023M LiBr was the eluent. The flow rate was 0.7 ml/min.

Polymer Source

Malvern Panalytical



Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P10892, Injection 1, Peak 1	14.26	378,851	384,935	372,668	394,089	1.016

B. NMR (^1H NMR) of S4VP in CDCl_3 , 500 MHz

