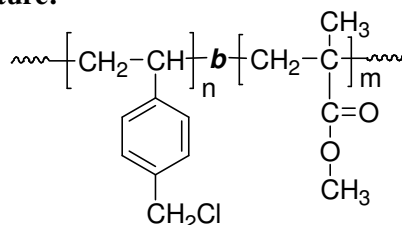


Sample Name: Poly (4-vinyl benzyl chloride-b-methyl methacrylate)

Sample # P19316-4VBCMMA

Structure:

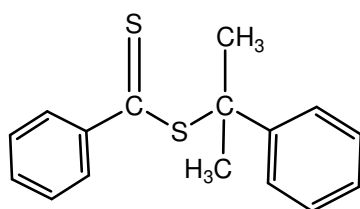


Composition:

Mn x 10 ³ VBC-b-MMA	PDI
41.5-b-90.0	1.4

Synthesis:

Poly (4-vinyl benzyl chloride-b-methyl methacrylate) block copolymer was synthesized by RAFT polymerization with sequence addition of vinyl benzyl chloride monomer and methyl methacrylate monomer. RAFT used



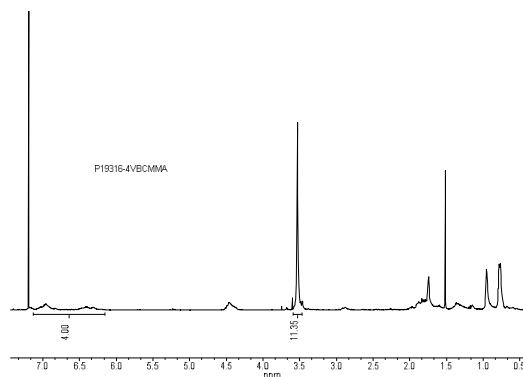
Characterization:

SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co. The molecular weight is calculated based on polystyrene standards. The NMR spectrum was recorded in deuterated chloroform to determine the the composition of copolymer.

Solubility:

Poly (4-vinyl benzyl chloride-b-methyl methacrylate) block copolymer is soluble in toluene, THF, CHCl₃; the polymer can be precipitated from ethanol, methanol, and hexane.

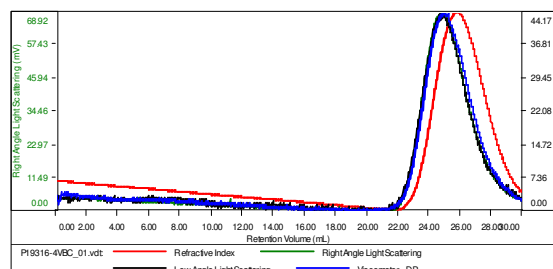
¹H-NMR Spectrum of the block copolymer:



SEC elugram of the first block:

Sample ID:P19316-4VBC

Concentration (mg/mL)	4.3970
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-May20-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

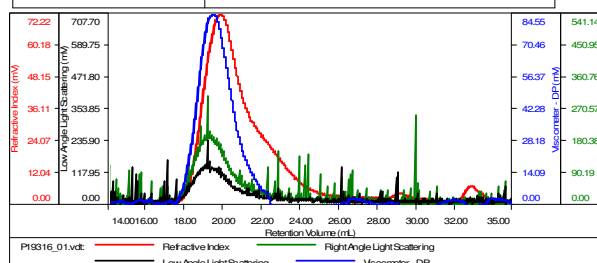


Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P19316-4VBC_01.vdt	41,598	56,368	47,030	1.355	0.3878

SEC elugram of the polymer:

Sample ID:P19316-MMA-4VBC

Concentration (mg/mL)	1.2432
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-Jan-2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn	Mw	Mz	IV	PDI
P19316_01.vdt	129,114	183,205	524,496	4.8333	28.91