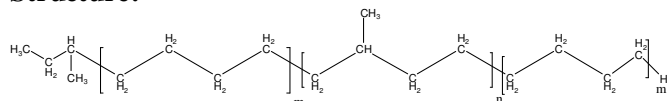


Sample name:

Poly(Ethylene-*b*-Ethylene Propylene-*b*-Ethylene) triblock copolymer

Other name:

Hydrogenated form of Poly(Butadiene-*b*-Isoprene-*b*-Butadiene), predominantly in 1,4-addition

Sample # P19567A-EEPrE**Structure:****Composition:**

Mn × 10 ³ (Bd-b-IP-b-Bd)	PDI
41.0-b-210.0-b-50.0	1.03
Compositions from HNMR	
After Hydrogenation 42.5-b-216.0-b-52.0	
Hydrogenation	> 98%

Synthesis procedure:

The polymer was synthesized by anionic polymerization in cyclohexane.

Characterization:

The polymer was characterized by ¹H NMR, SEC, FTIR and DSC.

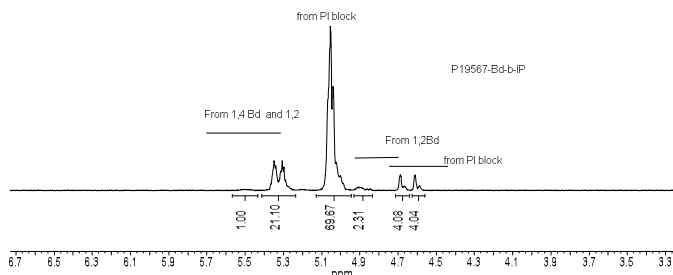
DSC thermal analysis:

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).

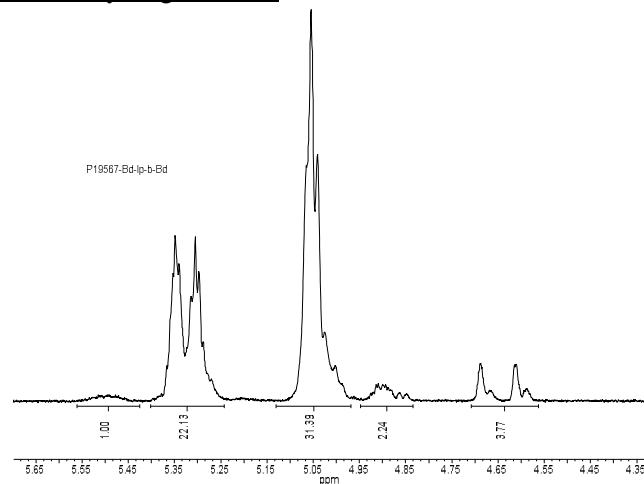
¹H NMR analysis:

Chemical shifts of Unsaturated blocks:	
Polybutadiene (Bd):	Polyisoprene (Ip):
5.43 ppm	5.13 ppm
5.38 ppm	4.98 ppm
4.76 ppm	4.76 ppm
4.69 ppm	4.69 ppm

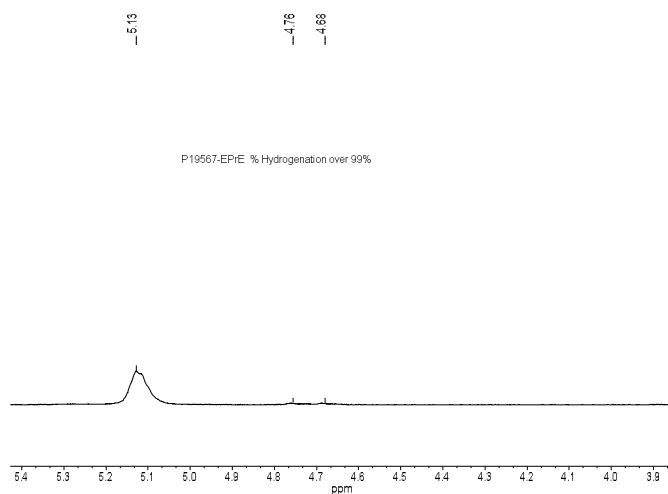
P19567-Bd-b-IP



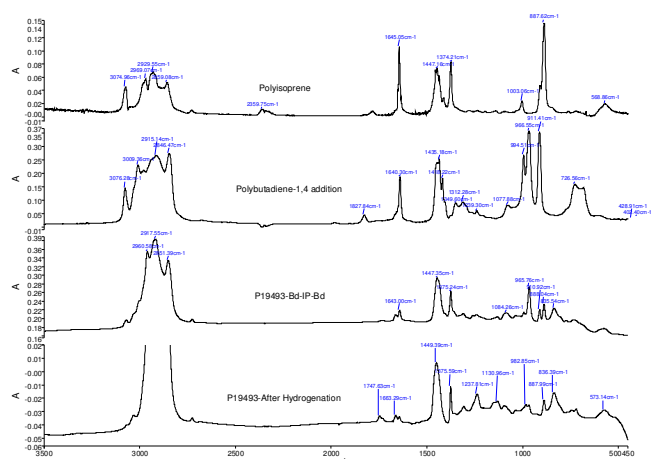
¹H NMR spectrum of Bd-IP block copolymer (before hydrogenation):



¹H NMR spectrum of E-EPPr-E triblock copolymer (hydrogenated form):



FTIR spectra:

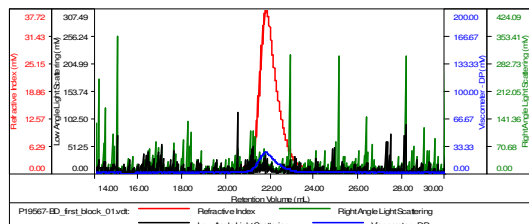


Name: P771-IP-SPA
 Description: P771-IP
 Name: Polybutadiene rich in 1,4 addition
 Description: Polybutadiene (P382-Bd)
 Name: P19493-Bd-IP-Bd
 Description: Sample 068 By Administrator Date Saturday, October 24 2015
 Name: P19493-After Hydrogenation
 Description: Sample 080 By Administrator Date Wednesday, November 04 2015

SEC of the first polybutadiene block:

Sample ID-P19567-Bd

Concentration (mg/mL)	0.1036
Sample dn/dc (mL/g)	0.1270
Method File	PS80K-Nov-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

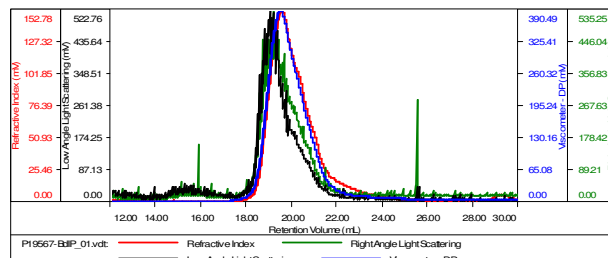


Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19567-BD_first_block_01.vct	40,635	63,478	44,301	1.562	6.5007

SEC of Bd-IP diblock copolymer:

Sample ID-P19567-BdIP

Concentration (mg/mL)	0.5900
Sample dn/dc (mL/g)	0.1880
Method File	PS80K-Nov-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

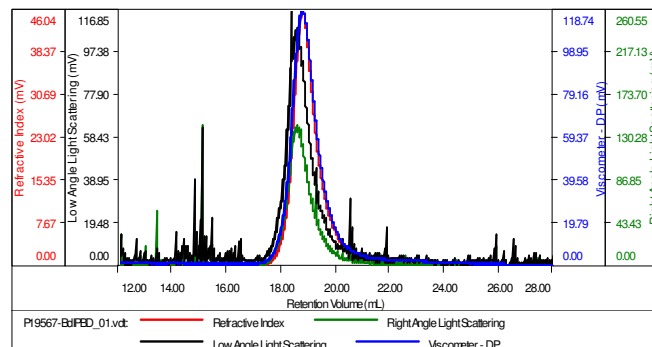


Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19567-BdIP_01.vct	244,959	301,357	222,940	1.230	32.6011

SEC of Bd-IP-Bd triblock copolymer:

Sample ID-P19567-BdIPBd

Concentration (mg/mL)	0.1373
Sample dn/dc (mL/g)	0.1380
Method File	PS80K-Nov-2015-0000.vcm
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)
P19567-BdIPBd_01.vct	305,161	357,253	293,085	1.171	29.1522