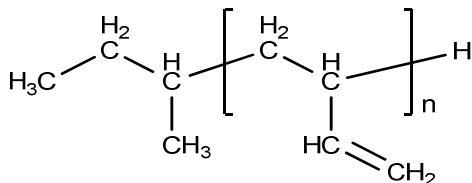


Sample Name: Polybutadiene (1,2-addition)

Sample #: P40032Bd

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
27.0	1.04

PBd 1,4-addition	11.0%
PBd 1,2-addition:	89.0%

Glass transition temperature (Tg):	-29°C
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**Synthesis procedure:**

1,2-addition polybutadiene was prepared by anionic living polymerization of butadiene in non-polar/polar media.

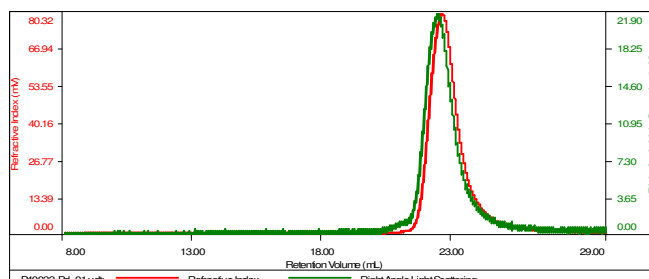
**Characterization:**

The polymer was characterized by <sup>1</sup>H NMR and SEC.

**SEC elugram of the polymer:**

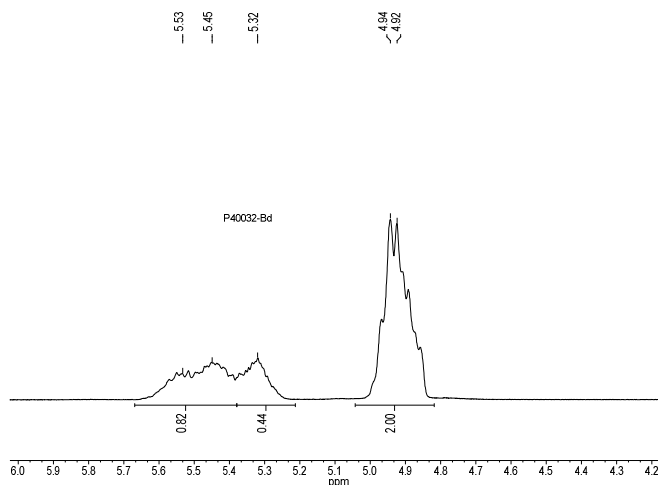
**Sample ID:** P40032-Bd

Concentration (mg/mL)	2.7183
Sample chide (mL/g)	0.1250
Method File	PS80K-30JUNE2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	N (dL/g)	Mp (Da)
P40032-Bd_01.vdt	26,290	27,446	1.044	0.6395	25,773

**<sup>1</sup>H NMR spectrum (500 MHz, CDCl<sub>3</sub>) of polybutadiene:**



Reference: Thermal transition of PBd.

Polybutadiene (Mn=2.2–2.4 x10 <sup>3</sup> )	Tg
1,2-addition: 78 %	-35°C
1,2-addition: 89 %	-29°C
1,2-addition: 99 %	-27°C