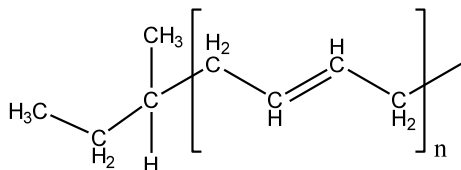


**Sample Name:** Polybutadiene (1, 4-rich microstructure)

**Sample #:** P19380-Bd

**Structure:**



**Composition:**

|                      |      |
|----------------------|------|
| Mn x 10 <sup>3</sup> | PDI  |
| 293.0                | 1.2  |
| 1,4 addition         | >92% |

**Synthesis Procedure:**

The 1,4-addition polybutadiene was prepared by anionic living polymerization of butadiene in non-polar media.

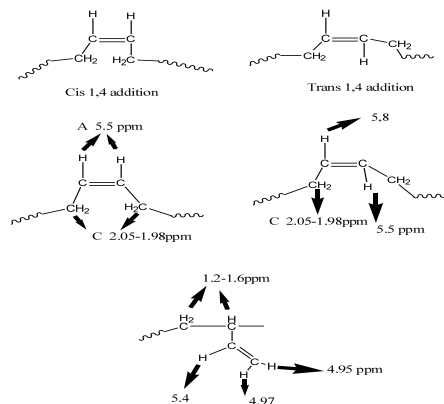
**Characterization:**

By GPC and HNMR.

**Microstructure:** The ratio between 1,4- and 1,2-addition was calculated by <sup>1</sup>H NMR spectroscopy.

**Solubility:**

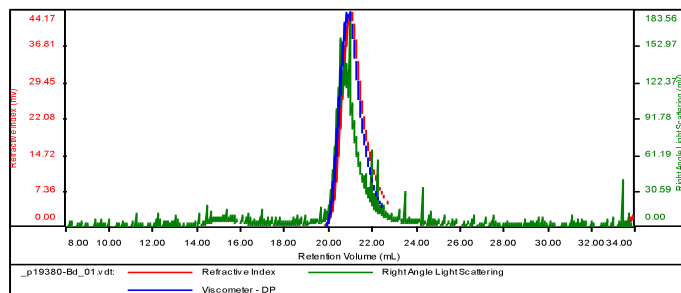
The polybutadiene is soluble in DMF, THF, toluene, hexane, cyclohexane and CHCl<sub>3</sub>. It precipitates from methanol, ethanol and water.



**SEC of Sample:**

**Sample ID:** P19380-Bd

|                       |                            |
|-----------------------|----------------------------|
| Concentration (mg/mL) | 0.4828                     |
| Sample dn/dc (mL/g)   | 0.1250                     |
| Method File           | PS80K-June30-2015-0000.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) |
|-------------------|------------------------|------------------------|-----------------|----------------|----------------------------|
| _p19380-Bd_01.vdt | 292,999                | 352,729                | 344,991         | 1.204          | 8.5763                     |

