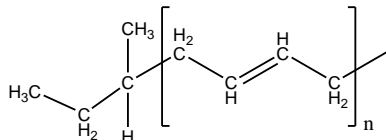


Sample Name:
Polybutadiene (1, 4-rich microstructure)

Sample #: P45244D-Bd

Structure:



Composition:

Mn x 10 ³	Mw/Mn	1,4 addition
32.0	1.03	>92%

Synthesis Procedure:

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

Characterization:

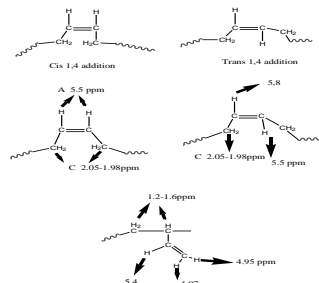
The product was characterized by size exclusion chromatography (SEC) and ¹H-NMR spectroscopy.

Microstructure:

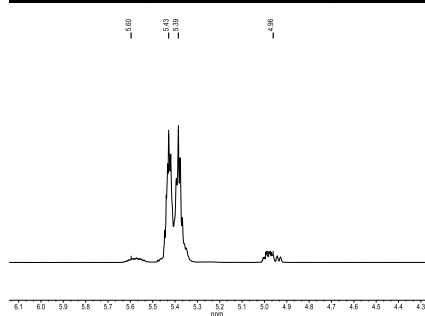
The ratio between 1,4- and 1,2-addition was calculated by ¹H-NMR spectroscopy.

Solubility:

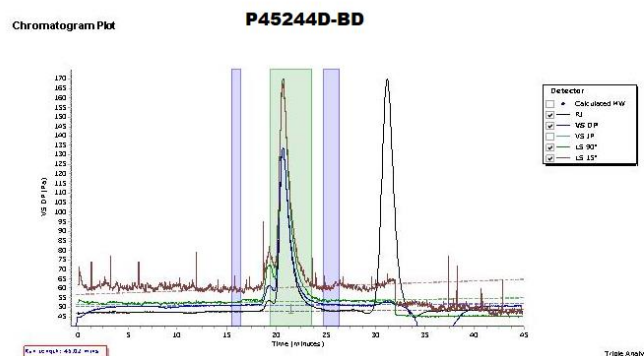
Polybutadiene is soluble in THF, toluene, hexane, cyclohexane and CHCl₃. It precipitates from methanol, ethanol, and water.



¹H-NMR spectrum of the polymer:



SEC elugram of the polymer in THF at 30 °C:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	35380	31853	32888	33695	34407	33643	1.029