

Sample Name: Deuterated poly butadiene
1,4 addition is 20.5% by FTIR and 25% by
1H NMR

Sample #: P1797-dBd

Composition:

Mn x 10 ³	PDI
325.0	1.12

Synthesis Procedure:

Deuterated polybutadiene -d₆ is obtained by living anionic polymerization of d₆ butadiene monomer:

Characterization:

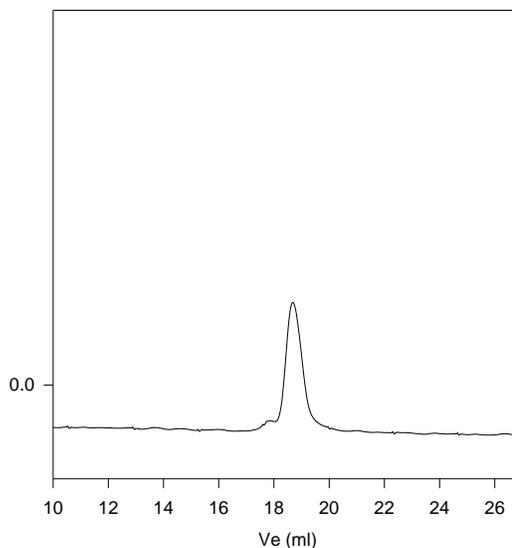
The molecular weight and polydispersity index (PDI) of the deuterated poly butadiene are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used.

Deuteration:

Solubility: Polymer is soluble in toluene THF . CHCl₃

SEC profile of the product:

P1797-dBd



Size exclusion chromatography of deuterated polybutadiene(d₆):

M_n=325000, M_w=364000, M_w/M_n=1.12