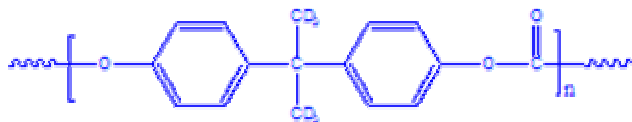


Deuterated Polycarbonate (d6)

(Bisphenol A Based)

Chemical Structure:

Sample #: P2648-dPC



Composition:

Mw x 10 ³	PDI
25.3	1.88

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.

Polymer is soluble in CHCl₃, Benzene, THF

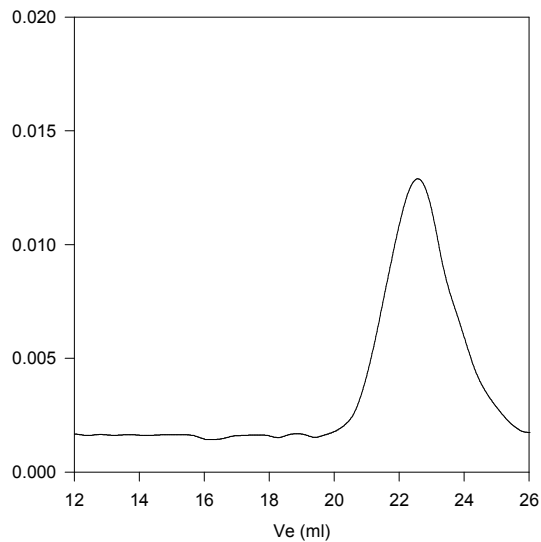
Purification of the Polymer:

Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product (NaOH and phosgene byproducts):

1. Dissolved the polymer in Benzene and wash with water.
2. Polymer solution in benzene was dried over anhydrous sodium sulfate.
3. Solution filtered and then passed through a column packed with basic Al₂O₃. Solution Filter and then Solution concentrated on rota-evaporator.
4. Polymer solution freez dried from Benzene and dried at 40 oc for 24h.

SEC profile of the product:

P2648-d6 Polycarbonate



Size exclusion chromatography of deuterated polycarbonate (d6-aliphatic protons deuterated):

M_w=25300, M_n=13500 PI=1.88