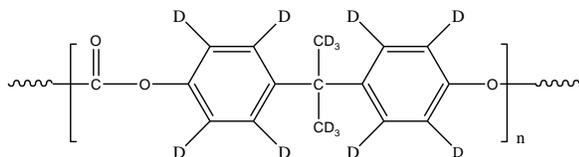


Deuterated Polycarbonate (d14) (Bisphenol A Based)

Sample #: P9205-d14PC

Chemical Structure:



Composition:

Mw x 10 ³	PDI
5.5	1.5

Solubility:

Polymer is soluble in CHCl₃, Benzene, THF

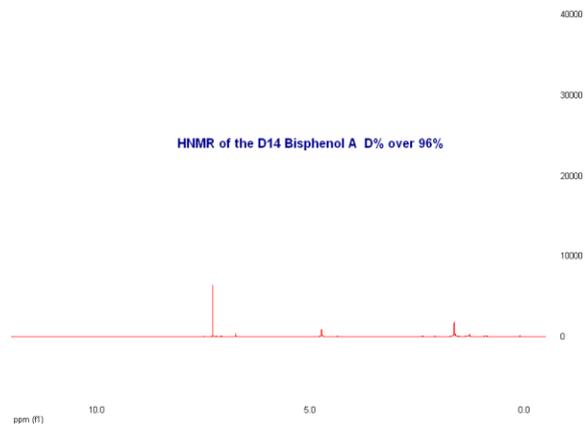
Purification of the Polymer:

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

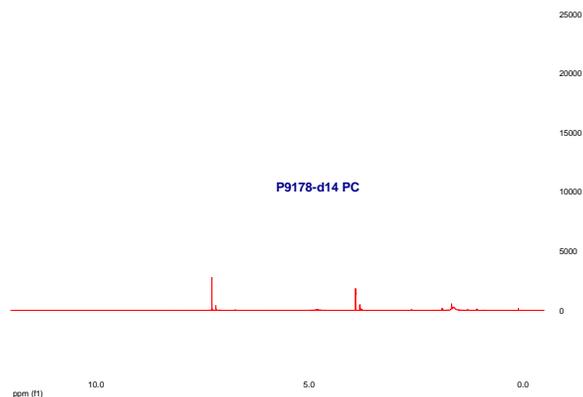
1. Dissolved the polymer in Benzene and wash with water.
2. Polymer solution in benzene was dried over anhydrous sodium sulfate.
3. Solution filtered and then passed through a column packed with basic Al₂O₃. Solution was filtered and then concentrated on rota-evaporator.

Polymer solution freeze dried from Benzene and dried at 40 °C for 24h.

D14 Bisphenol monomer was characterized by Mass spectroscopy and by HNMR



HNMR of The polymer:



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.

SEC profile of the product:

