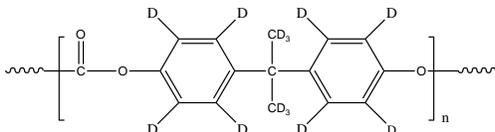


**Sample Name: Deuterated Polycarbonate (d14)
(Bisphenol A Based)**

Sample #: P41812-d14PC

Chemical Structure:



Composition:

Mw x 10 ³	Mn x 10 ³	PDI
25.5	15.0	1.7

Purification of the Polymer:

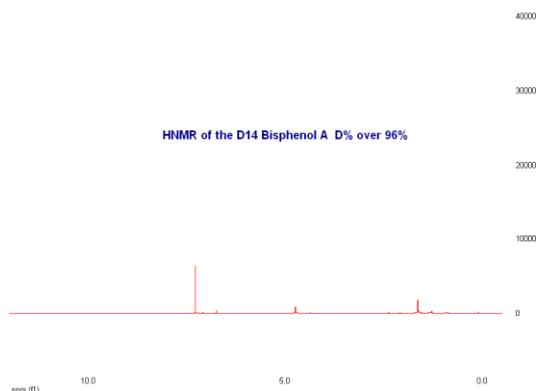
Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product (NaOH and phosgene byproducts):

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 rotavaporator.

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

D14 Bisphenol monomer was characterized by Mass spectroscopy and by HNMR.

H NMR spectrum of D14 Bisphenol A monomer:



Characterization:

The product was characterized by size exclusion chromatography (SEC).

Solubility:

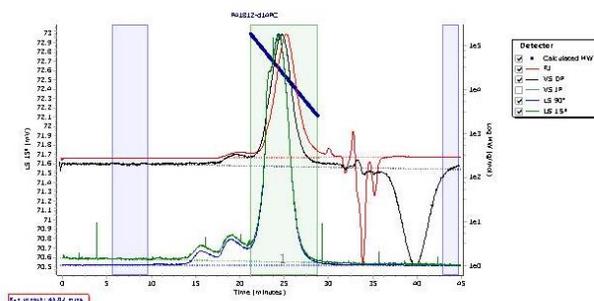
Polymer is soluble in CHCl₃, Benzene and THF.

SEC profile of the product:

Agilent GPC/SEC Software

P41812-d14PC

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mu (g/mol)	PD
Peak 1	19415	14901	25480	44050	73512	38959	1.71

Processing Parameters