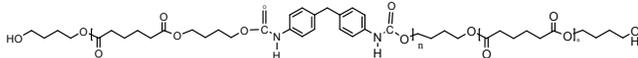


Sample Name:

Poly urethane based on Adipic acid, Butane diol and 4, 4'-Methylenebis (phenyl isocyanate) MDI-based polyurethanes

Sample #: P19233C-PU

Structure:



Composition:

Composition:

M _w x 10 ³	M _w /M _n (PDI)	Composition Adipic acid: Butanediol:MDI	T _g (°C)
6.0	1.4	1:1:1	-15.7

Mn of Oligomers around 2,000

Synthesis Procedure:

Polyurethane is prepared in two-step procedure A: oligomerization of Adipic acid with Butane diol and then B reaction with MDI.

Characterization:

An aliquot of the copolymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The chemical composition was verified by ¹H-NMR spectroscopy, which is run in deuterated chloroform at 500MHz. The glass-transition temperature was measured by DSC.

Solubility:

Chloroform	THF	DMF	DMSO
(y)	(Y)	(Y)	(Y)

Figure: ¹H NMR spectrum

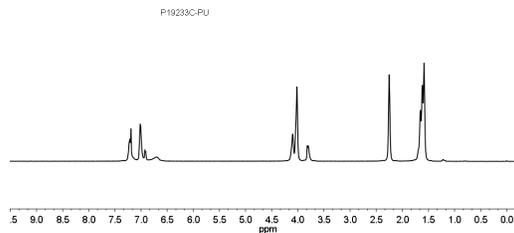
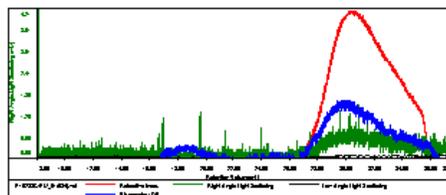


Figure: SEC profile of the polyurethane

Sample ID: P19233C-PU

Concentration (mg/mL)	0.951
Sample dilute (mL)	0.100
Method file	SEC-APR13-08-00101010
Column list	3: PL 11 (3x50)
Solvent	THF



DSC Thermogram:

