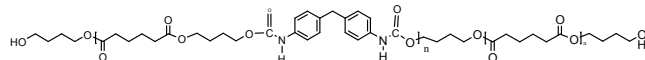


Sample Name:

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

Sample #: P19344B-PU

Structure:



Composition:

M _w x 10 ³	M _w /M _n (PDI)	Composition Adipic acid: Butanediol:MDI	T _g (°C)
12.0	1.4	1:1:1	-15.1

Mn of Oligomers : Trimer of Adipic acid and butandiol: 3000

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 (Y)	THF (y)	DMF (Y)	DMSO (Y)
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Figure: ¹H NMR spectrum

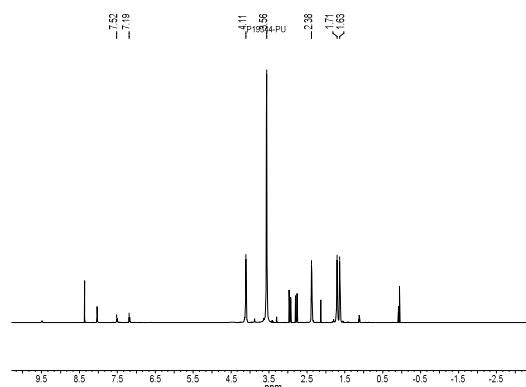
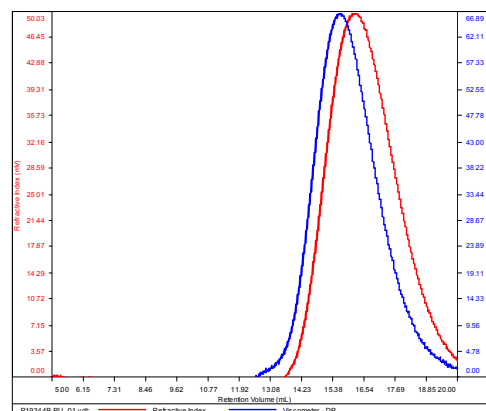


Figure: SEC profile of the polyurethane

SAMPLE ID: P19344B-PU

Conc (mg/mL)	4.5508
dn/dc (mL/g)	0.1100
Method	ps 80k-May2015-0000.ucm
Solvent	DMF w 0.03M LiBr
Column	PSS



Sample	M _n	M _w	M _p	M _w /M _n	IV
P19344B-PU_01.vdt	8,579	11,854	10,960	1.382	0.4365

DSC Thermogram:

