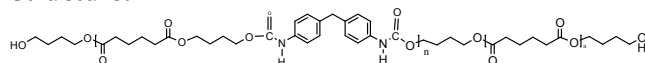


**Sample Name:** Poly urethane based on Adipic acid, Butane diol and 4, 4'-Methylenebis (phenyl isocyanate) MDI- based polyurethanes  
**Sample #:** P19226-PU

#### Structure:



#### Composition:

Mw x 10 <sup>3</sup>	Mw/Mn (PDI)	Composition Adipic acid: Butanediol:MDI	T <sub>g</sub> (°C)
121.0	1.28	1:1:1	-28.1

**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.

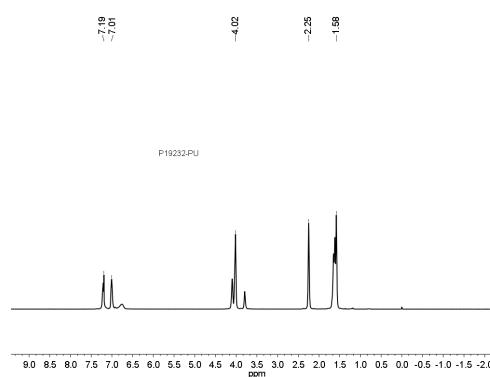
#### Characterization:

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 <sup>1</sup>H-NMR spectroscopy, which is run in deuterated chloroform at 500MHz. The glass-transition temperature was measured by DSC.

#### Solubility:

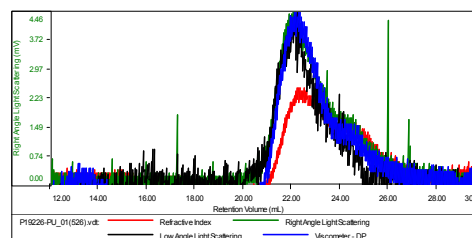
Chloroform (Y)	THF (Y)	DMF (Y)	DMSO (Y)
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#### Figure: <sup>1</sup>H NMR spectrum



#### Figure: SEC profile of the polyurethane Sample ID: P19226-PU

Concentration (mg/mL)	0.0596
Sample chdc: (mL/g)	0.1850
Method File	PS80K-April13-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19226-PU_01(526).vdt	94,656	121,015	137,490	1.278	1.6788

#### DSC Thermogram:

