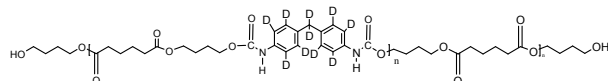


Sample Name:

Partially Deuterated Poly urethane based on Adipic acid, Butane diol and deuterated 4, 4'-Methylenebis (phenyl isocyanate) MDI (D8) - based polyurethanes

Sample #: **P19278-PU (MDI deuterated)**

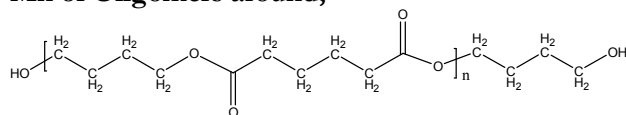
Structure:



Composition:

Mw x 10 ³	Mw/Mn (PDI)	Composition Oligomers:MDI	Tg (°C)
13.0	1.7	1:1.3	

Mn of Oligomers around;



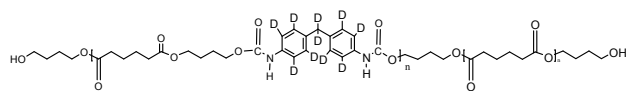
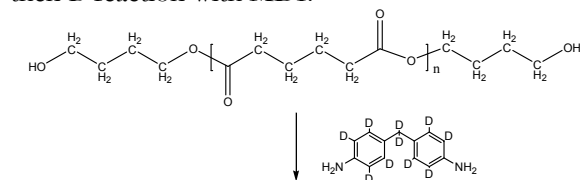
[Mn of Oligomers : Trimer of Adipic acid and 1,4 Butandiol: 2,700

Polyurethane is prepared in two-step procedure A: oligomerization of Adipic acid with Butane diol and then B reaction with MDI containing 1,4 butane diol.

Oligomers (g)	MDI added
8.4g	8.527x10 ⁻³ mole of MDI
Mn 2,700	
6.22 x10 ⁻³ mole (end groups)	2.2g (MDI)

Synthesis Procedure:

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



Characterization:

BY SEC in THF and HNMR 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

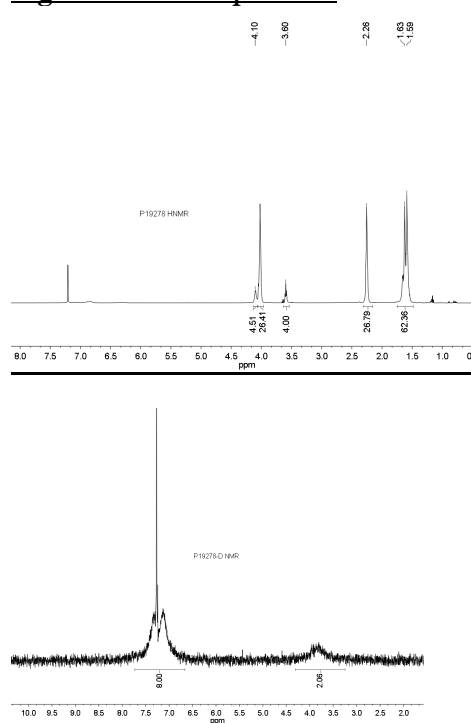
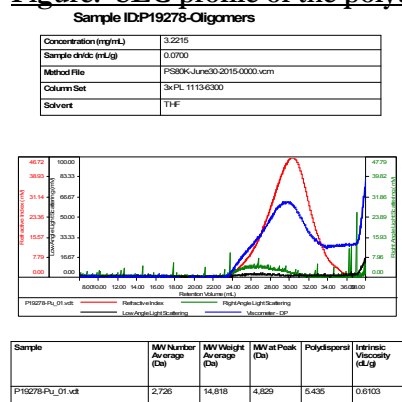


Figure: SEC profile of the polyurethane



Sample ID: P19278-PU partial deuterated

