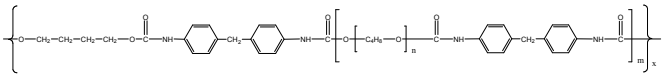
Sample Name:
Poly urethane based on poly(tetramethylene oxide)-butane diol and with MDI isocynate

Lot Sample #: **P7292-PU**

Structure

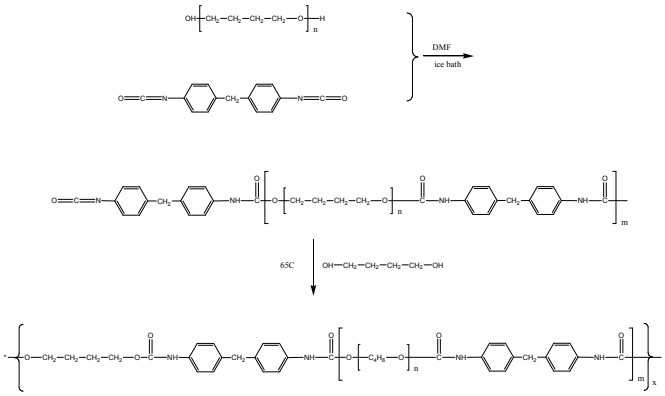


Composition

Mw x 10^3	Mw/Mn (PDI)	Composition
14.7	1.6	MDI:PTMO:BDL 6.0:1.0:5.0 feed ratio
		From H NMR 6.0:1.1:5.4

MDI: 4,4'-Methylenebis(phenyl isocyanate)
PTMO: Poly(tetramethylene oxide) Mn=250
BDL: 1,4-Butanediol

Synthesis Procedure:
The synthesis method was followed the literature offered by costumer. The scheme of the reaction is illustrated below:

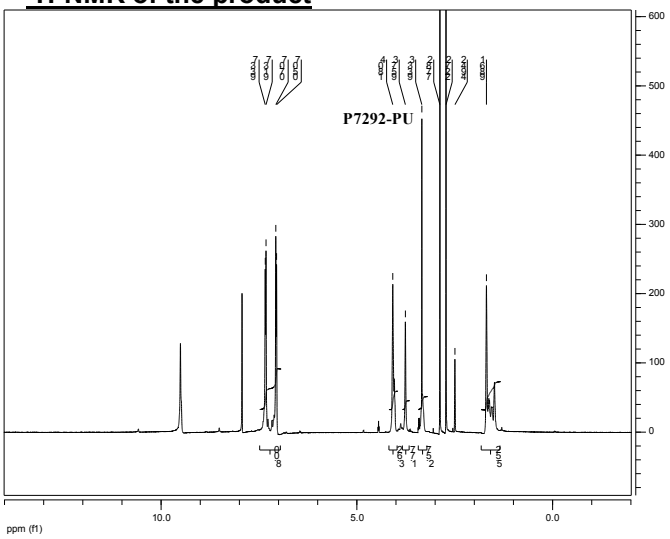


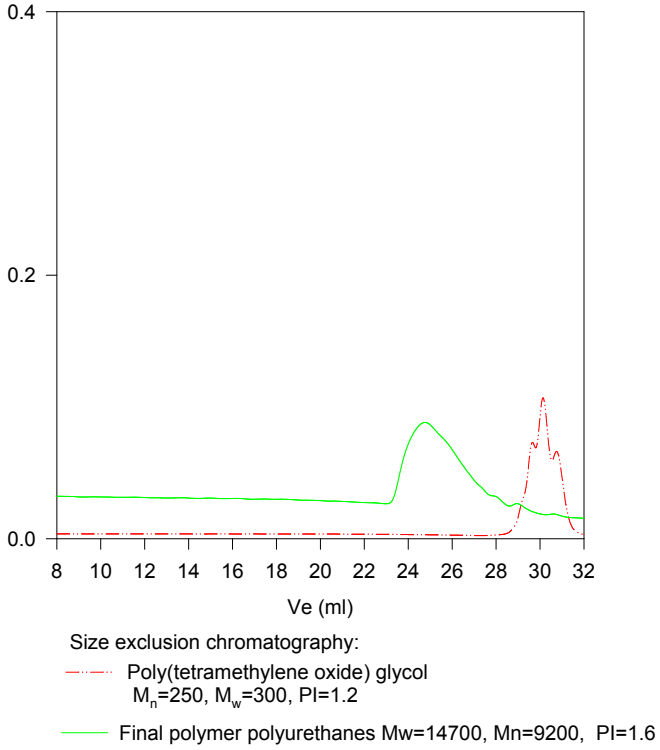
Characterization:
The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight, polydispersity index (PDI). The composition of the structure was determined by comparing the area of 7.0-7.4ppm (MDI), 3.33ppm (PTMO) and 4.08ppm (BDL) in NMR spectrum.

Solubility:

Composition Feeding ratio	Chloroform	THF	DMF	DMSO	Tg-Liter.
MDI:PTMO:BDL (6.0:1.0:5.0)	N	Y	Y	Y	26.6

^{1}H-NMR of the product



SEC of the product:

P7292- PU