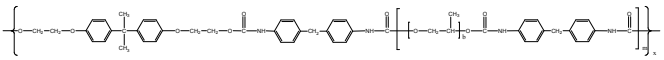
Sample Name:
polyurethanes based on poly(propylene glycol), poly(propylene glycol) and MDI diisocyanete

Lot Sample #: **P7276-PU**

structure



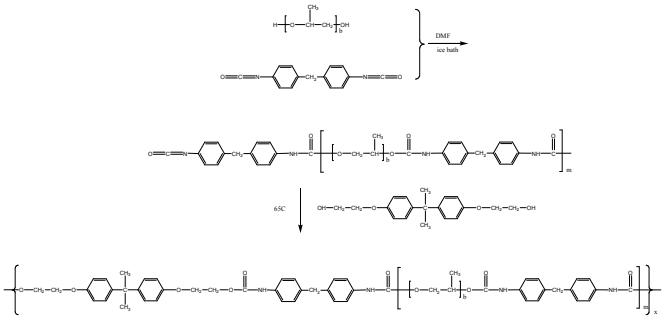
Composition

Mw x 10^3	Mw/Mn (PDI)	Composition
25.4	1.8	MDI:PPO:BPAEO 1.8:1.0:0.81 feed ratio
		From H NMR 1.8:0.74:0.56

MDI: 4,4'-Methylenebis(phenyl isocyanate)
PPO Poly(propylene glycol) (725)
BPAEO: Bisphenol A + ethylene oxide

Synthesis Procedure:

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



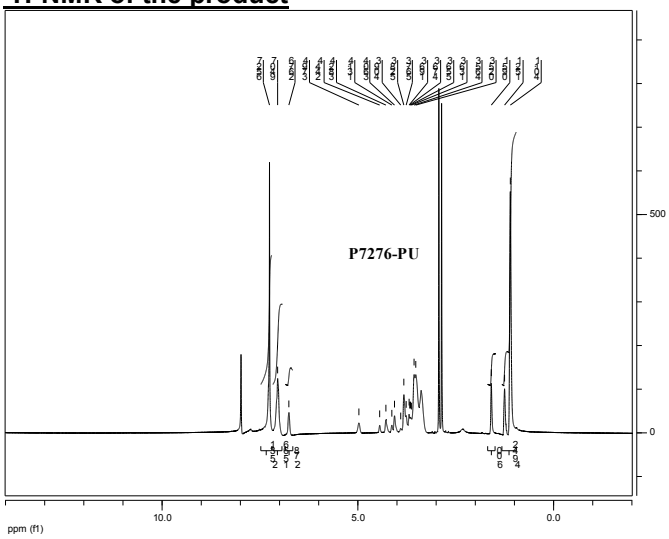
Characterization:

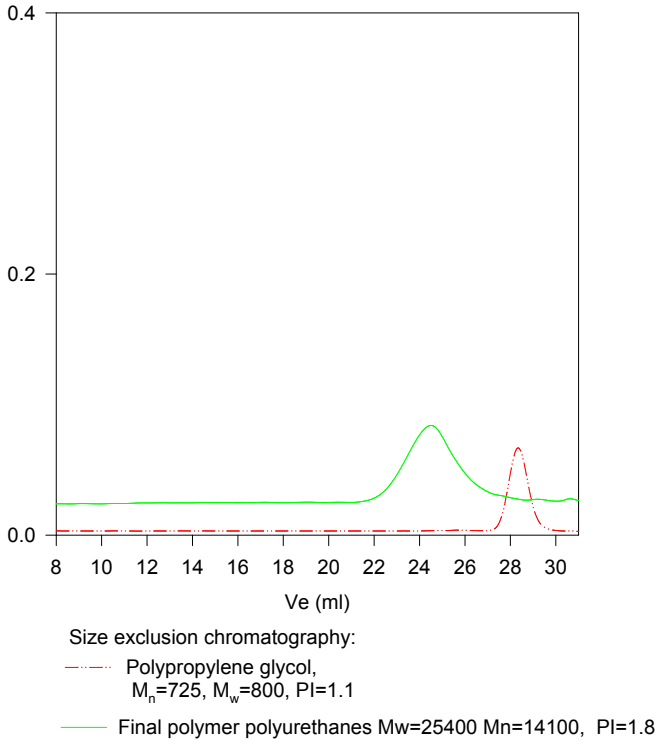
The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight, polydispersity index (PDI). The composition of the structure was determined by comparing the area of 7.09ppm deduct area of 6.773ppm (MDI), 1.0-1.4ppm (PPG) and 1.59ppm (BOAEO) in NMR spectrum.

Solubility:

MDI:PPO:BPAEO (1.8:1.0:0.81)	Chloroform Y	DMF Y	THF Y	DMSO Y (slow)	Tg oC 25

^{1}H-NMR of the product



SEC of the product:

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