

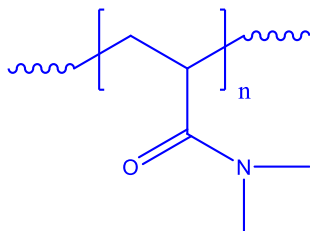
Product Profile

Identification

Product Name: Poly(N-N-dimethylacrylamide)

Product Lot Number: P40522A-R-DMA

Product Chemical Architecture:



Composition:

Mn (g/mole)	78,000
MW (g/mole)	160,000
Mw/Mn	2.05
dn/dc (mL/g)	0.165 in water

Method of Synthesis

The polymer is synthesized by free-radical polymerization initiated by AIBN. Obtained polymer fractionated using proper solvent/nonsolvent and the obtained polymer was purified by dissolving in acetone and precipitating in ether.

Solubility in different solvents

THF	✓	DMF	✓
Alcohol	✓	CHCl ₃	✓
Toluene	X	DMSO	✓

Validation of Architecture

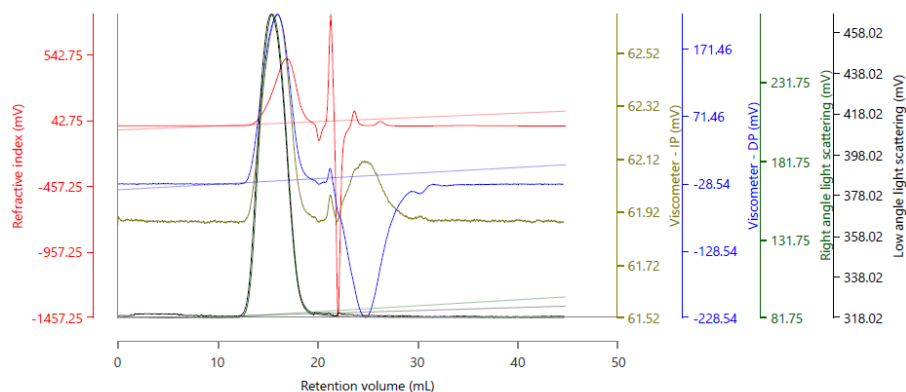
A. Gel Permeation Chromatography (GPC), SEC- Profile:

Polymer Source

Malvern Panalytical



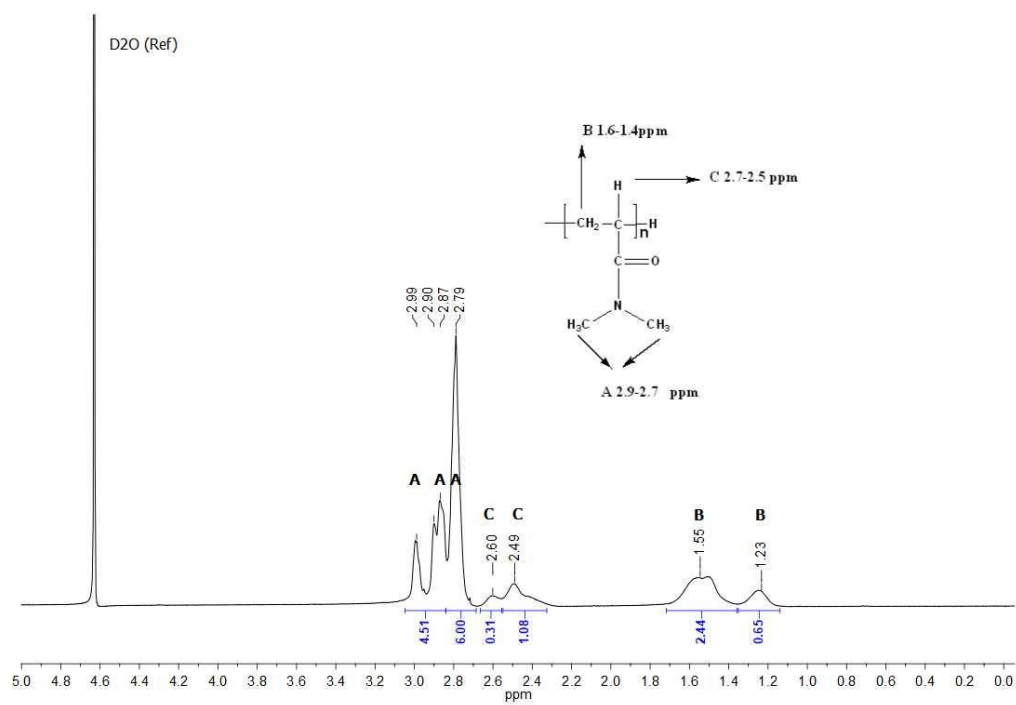
Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P40522A, Injection 1, Peak 1	16.9	77,895	159,700	79,704	445,827	2.05

B. NMR (HNMR) OF PDMA general



C. Dependence of glass transition temperature (T_g) of PDMA from its molecular weight:

