

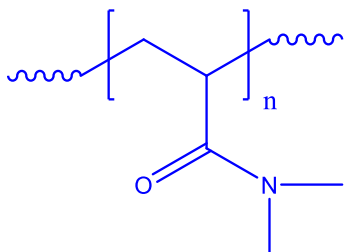
Product Profile

Identification

Product Name: Poly(N-N-dimethylacrylamide)

Product Lot Number: P40560A-R-DMA

Product Chemical Architecture:



Composition:

Mn (g/mole)	560,000
MW (g/mole)	805,000
Mw/Mn	1.44
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	√	CHCl3	√
Toluene	X	DMSO	√

Validation of Architecture

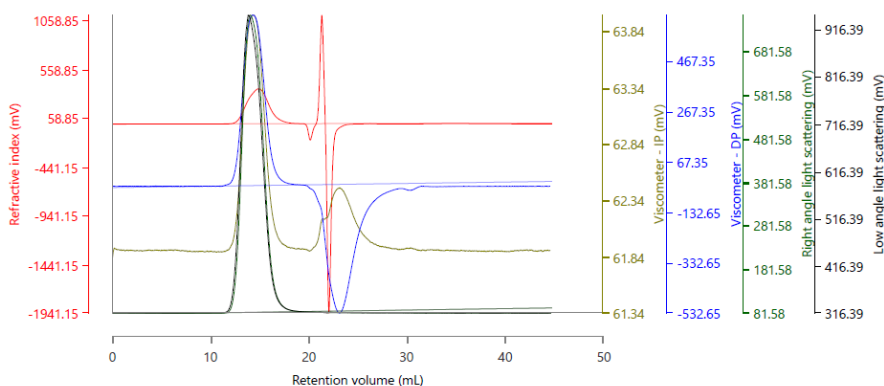
A. Gel Permeation Chromatography (GPC), SEC- Profile:

Polymer Source

Malvern Panalytical



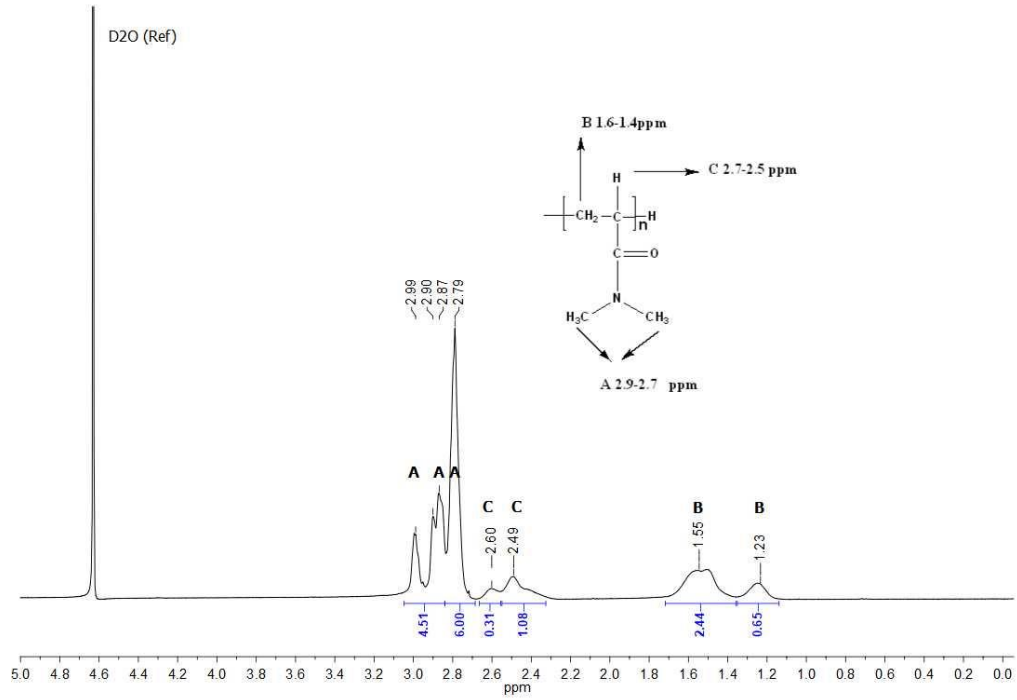
Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P40560A, Injection 1, Peak 1	14.91	560,024	805,217	640,798	1,178,580	1.438

B. NMR (HNMR) OF PDMA general



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

