

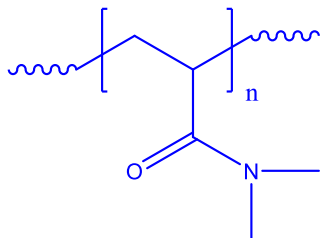
Product Profile

Identification

Product Name: Poly(N-N-dimethylacrylamide)

Product Lot Number: P18653D-R-DMA

Product Chemical Architecture:



Composition:

Mn (g/mole)	34,000
MW (g/mole)	70,000
MW/Mn	2.06
dn/dc (mL/g)	1.65 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

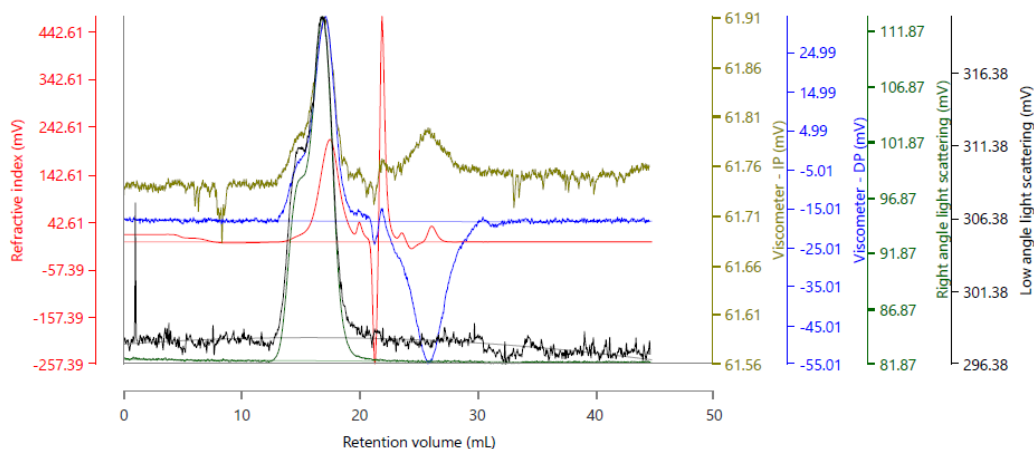
A. Gel Permeation Chromatography (GPC), SEC- Profile:

Polymer Source

Malvern Panalytical



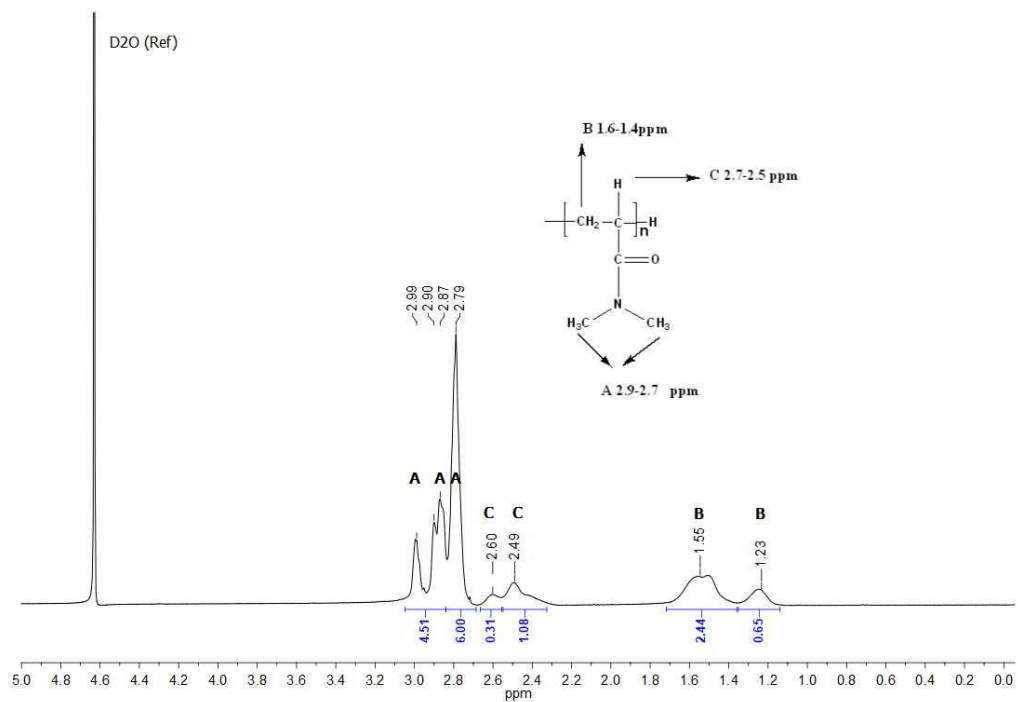
Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P18653D, Injection 1, Peak 1	17.49	33,979	70,144	38,184	222,265	2.064

B. NMR (HNMR) OF PDMA general



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

