

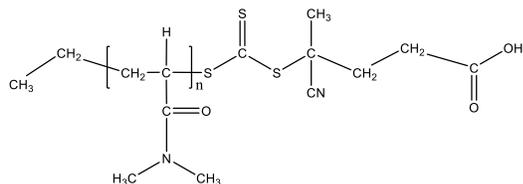
# Product Profile

## Identification

**Product Name:** Poly(N-N-dimethylacrylamide)

**Product Lot Number:** P41270D-R-DMA

**Product Chemical Architecture:**

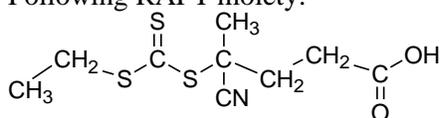


**Composition:**

<b>Mn (g/mole)</b>	<b>52,500</b>
<b>MW (g/mole)</b>	<b>60,500</b>
<b>MW/Mn</b>	<b>1.15</b>
<b>dn/dc (mL/g)</b>	<b>0.165 in water</b>

## Method of Synthesis

The polymer is prepared by RAFT polymerization process using Following RAFT moiety:



**Solubility in different solvents**

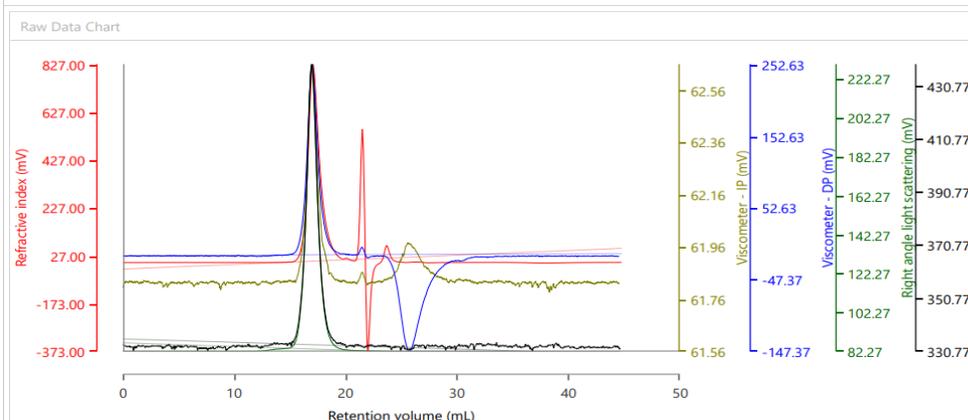
THF	√	DMF	√
Alcohol	√	CHCl3	√
Toluene	<b>X</b>	DMSO	√

## Validation of Architecture

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

Polymer Source

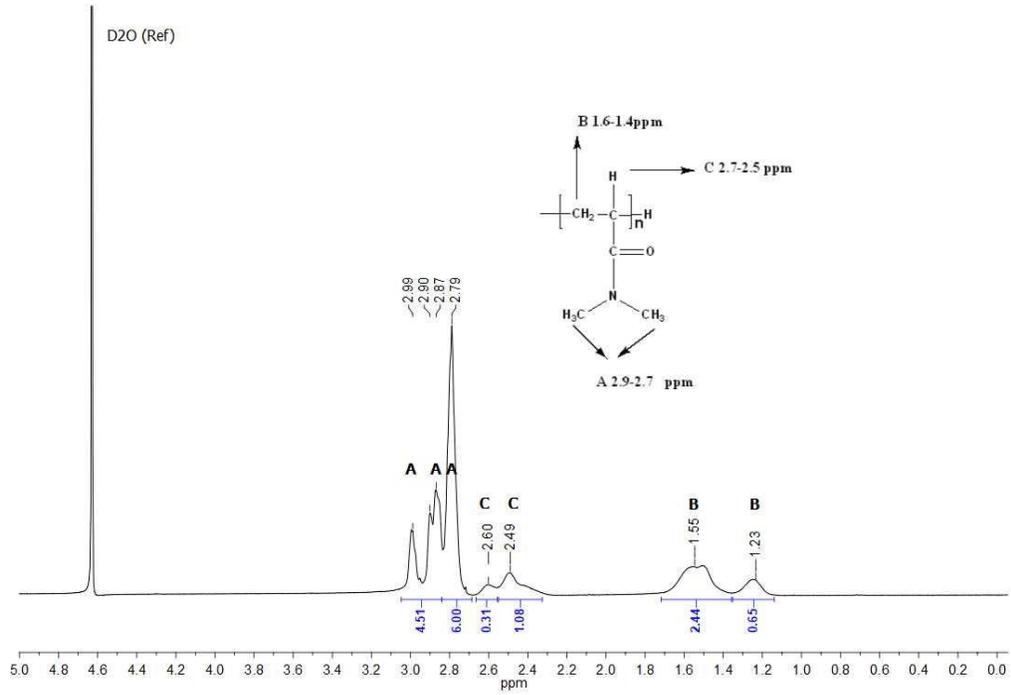
Malvern Analytical



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P41270D, Injection 1, Peak 1	17.03	52,571	60,452	59,444	70,678	1.15

**B. NMR (HNMR) OF PDMA general**



**C. Dependence of glass transition temperature (T<sub>g</sub>) of PDMA from its molecular weight:**

