

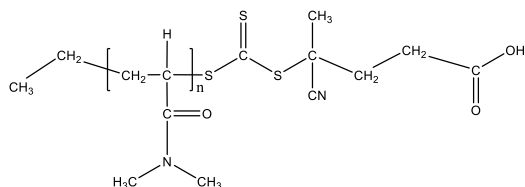
# Product Profile

## Identification

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

**Product Lot Number:** P41270-2-R-DMA

**Product Chemical Architecture:**

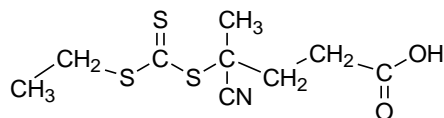


**Composition:**

<b>Mn (g/mole)</b>	<b>14,000</b>
<b>MW (g/mole)</b>	<b>20,000</b>
<b>Mw/Mn</b>	<b>1.45</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 the following RAFT moiety:



**Solubility in different solvents**

THF	√	DMF	√
Alcohol	√	CHCl <sub>3</sub>	√
Toluene	X	DMSO	√

## Validation of Architecture

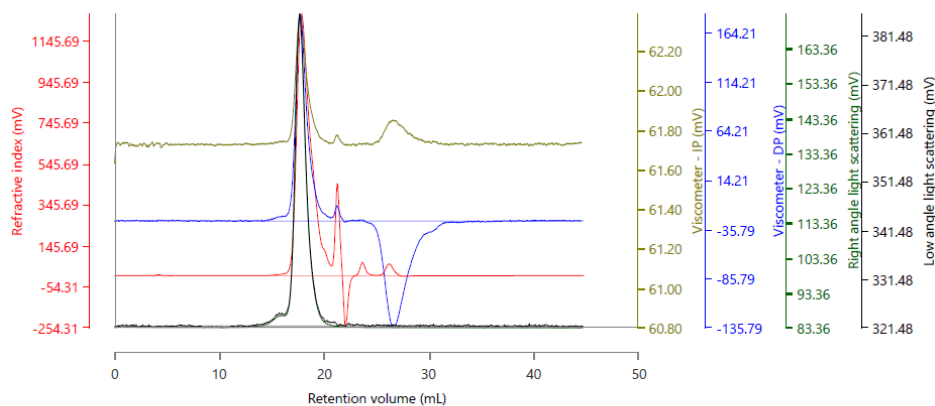
**A. Gel Permeation Chromatography (GPC), SEC- Profile:**

Polymer Source

Malvern Panalytical



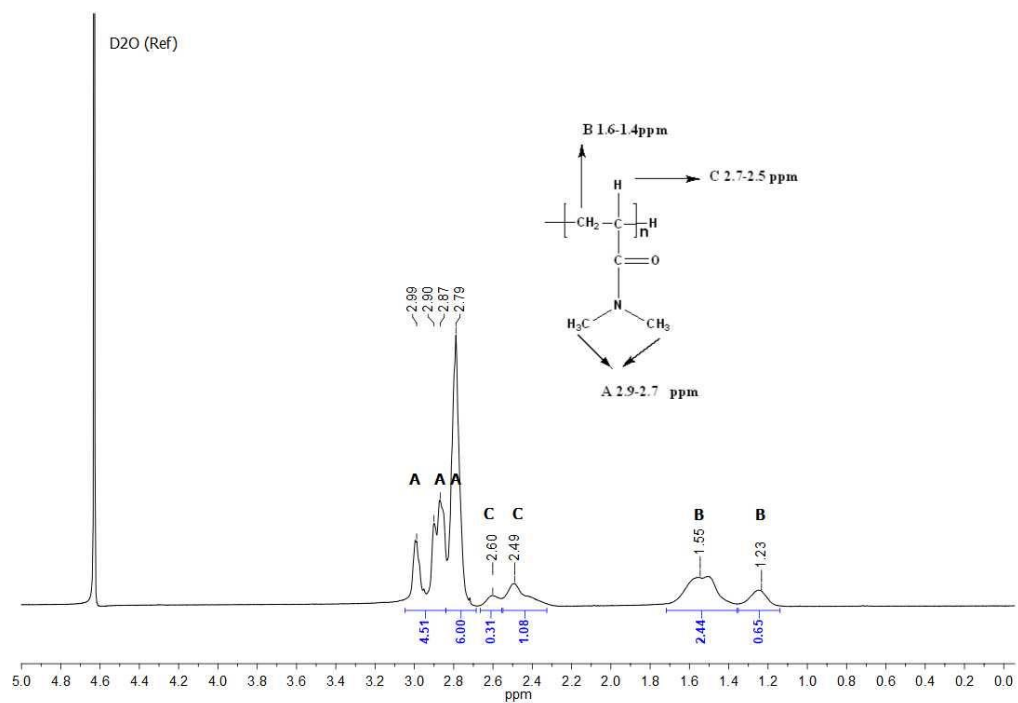
Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P41270-2, Injection 1, Peak 1	17.84	14,008	20,297	22,681	31,244	1.449

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



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

