

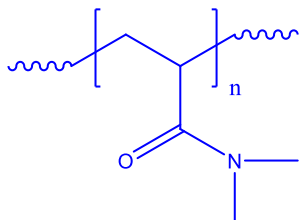
# Product Profile

## Identification

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

**Product Lot Number:** P41440-R-DMA

**Product Chemical Architecture:**



**Composition:**

<b>Mn (g/mole)</b>	<b>490,000</b>
<b>MW (g/mole)</b>	<b>760,000</b>
<b>Mw/Mn</b>	<b>1.55</b>
<b>dn/dc (mL/g)</b>	<b>0.165 in water</b>

## Method of Synthesis

The polymer is prepared by free radical process.

**Solubility in different solvents**

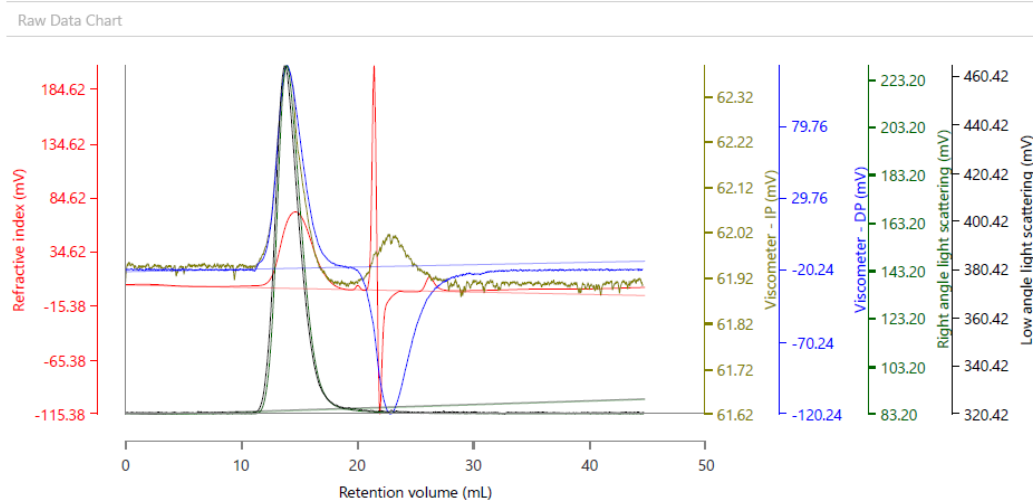
THF	√	DMF	√
Alcohol	√	CHCl <sub>3</sub>	√
Toluene	X	DMSO	√

## Validation of Architecture

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

Polymer Source

Malvern Panalytical



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P41440, Injection 1, Peak 1	14.67	489,886	760,179	664,209	1,113,096	1.552

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



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

