

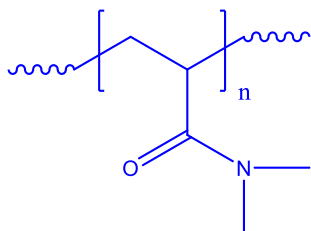
# Product Profile

## Identification

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

**Product Lot Number:** P40530A-R-DMA

**Product Chemical Architecture:**



**Composition:**

<b>Mn (g/mole)</b>	<b>46,000</b>
<b>MW (g/mole)</b>	<b>68,000</b>
<b>MW/Mn</b>	<b>1.48</b>
<b>dn/dc (mL/g)</b>	<b>1.65 in water</b>

## 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**

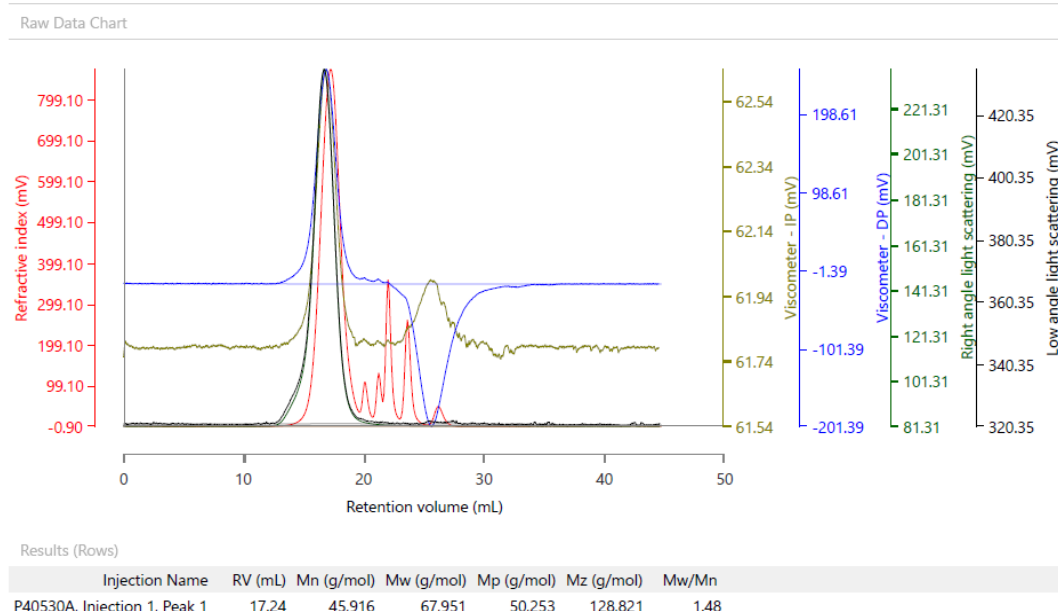
THF	√	DMF	√
Alcohol	√	CHCl <sub>3</sub>	√
Toluene	X	DMSO	√

## Validation of Architecture

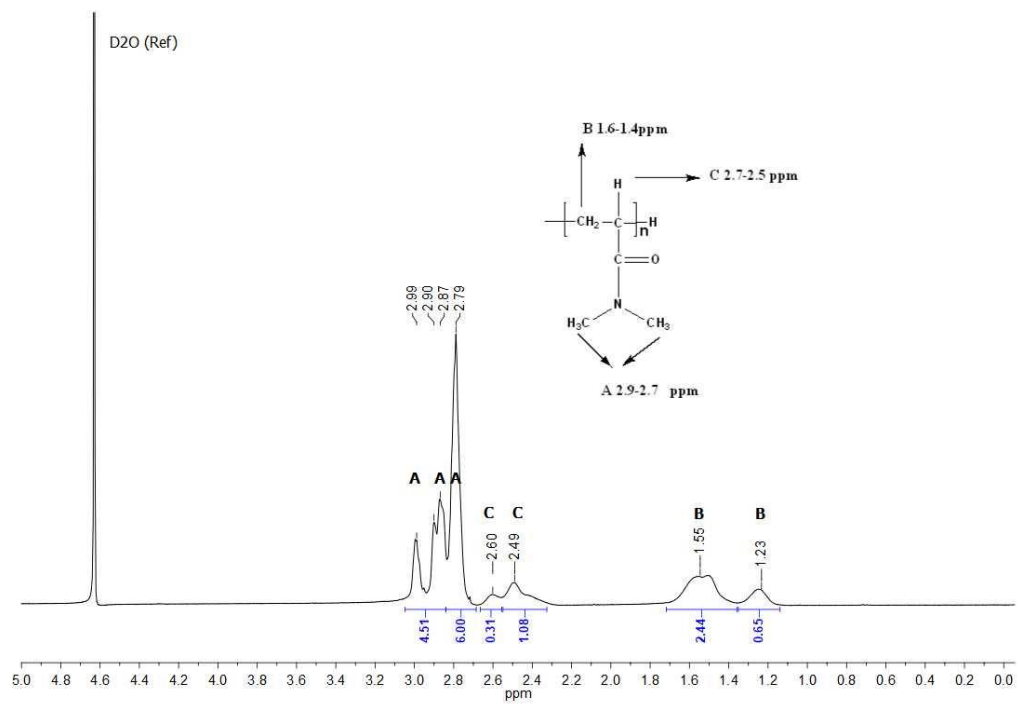
**A. Gel Permeation Chromatography (GPC), SEC- Profile:**

Polymer Source

Malvern Panalytical



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



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

