

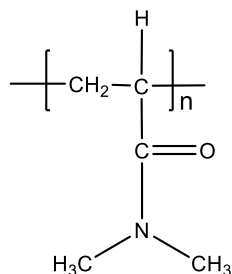
# Product Profile

## Identification

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

**Product Lot Number:** P41446A-R-DMA

**Product Chemical Architecture:**



**Composition:**

|                     |                      |
|---------------------|----------------------|
| <b>Mn (g/mole)</b>  | <b>768,000</b>       |
| <b>MW (g/mole)</b>  | <b>1,109,000</b>     |
| <b>MW/Mn</b>        | <b>1.44</b>          |
| <b>dn/dc (mL/g)</b> | <b>1.65 in water</b> |

## Method of Synthesis

The polymer is prepared by radical polymerization process.

**Solubility in different solvents**

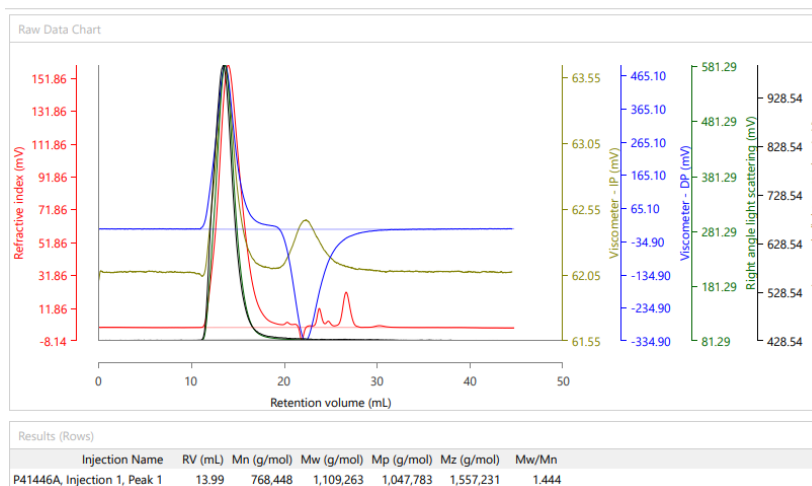
|         |   |                   |   |
|---------|---|-------------------|---|
| THF     | √ | DMF               | √ |
| Alcohol | √ | CHCl <sub>3</sub> | √ |
| Toluene | X | DMSO              | √ |

## Validation of Architecture

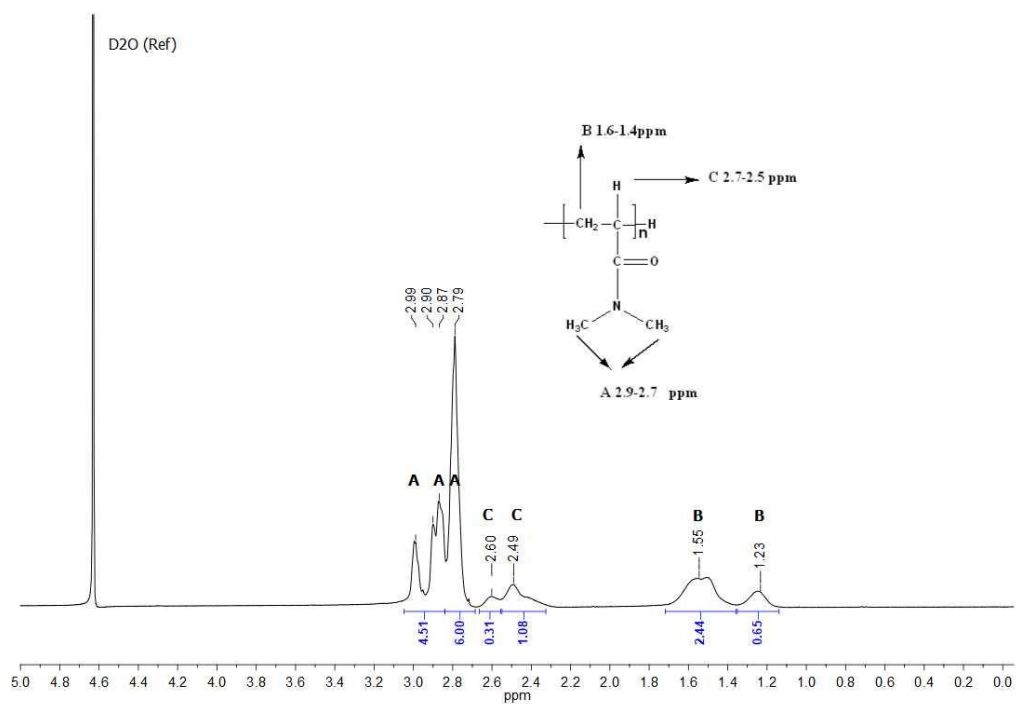
### A. Gel Permeation Chromatography (GPC), SEC- Profile:

Polymer Source

Malvern Panalytical



## B. NMR (HNMR) OF PDMA general



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

