

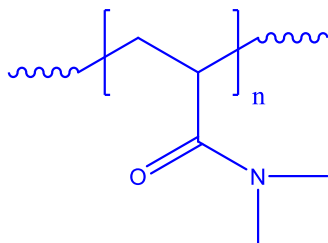
# Product Profile

## Identification

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

**Product Lot Number:** P40560B-R-DMA

**Product Chemical Architecture:**



**Composition:**

<b>Mn (g/mole)</b>	<b>574,000</b>
<b>MW (g/mole)</b>	<b>726,000</b>
<b>Mw/Mn</b>	<b>1.27</b>
<b>dn/dc (mL/g)</b>	<b>0.165 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

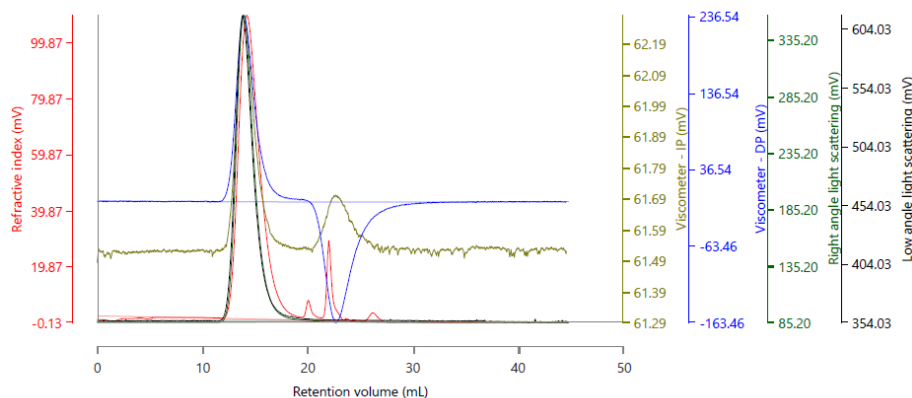
**A. Gel Permeation Chromatography (GPC), SEC- Profile:**

Polymer Source

Malvern Panalytical



Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P40560B 376k, Injection 1, Peak 1	14.21	573,607	726,204	736,231	942,583	1.266

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



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

