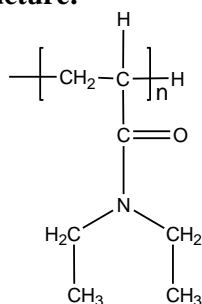Sample Name: **Poly(N-N-diethylacrylamide)**

Sample #: **P41946-DEAMD**

Structure:

Composition:

Mn x 10^3 w.r.t Polystyrene	PDI
34.0	1.7
T$_g$ (°C)	81

Synthesis Procedure:
The polymer is synthesized by GTP polymerization process.

Characterization:
The molecular weight and polydispersity index (PDI) of the polymer are obtained by size exclusion chromatography

Thermal analysis:
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T$_g$).

Solution viscosity:
Intrinsic viscosity was determined in methanol at 25 °C using ubbelhode viscometer. The molecular weight is calculated based on the following equation in Methanol at 25 °C:
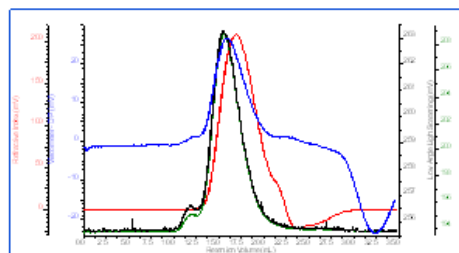
$$[\eta] = 0.0175 \times M_v^{0.68}$$

Solubility:
Polymer is soluble in methanol, ethanol and water, precipitated in hexane.

SEC elugram of Homopolymer:

dn/dc	0.0650
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0004.vcm

Sample	Mn	Mw	Mp	Mw/Mn
1_2019-08-13	33,905	58,740	46,455	1.732

DSC thermogram for the polymer: