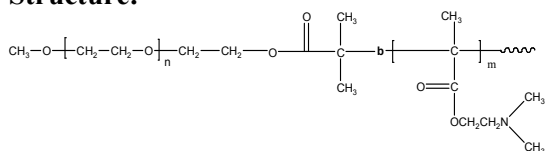


Sample Name: Poly (ethylene oxide-b-2-(dimethylamino) ethyl methacrylate)

Sample #: P40027-EODMAEMA

Structure:



Composition:

Mn x 10 ³ PEO-b-PDMAEMA	PDI
9.0-b-6.3	1.10
Dp:	204-b-40

Synthesis Procedure:

The polymer was synthesized by anionic and controlled radical process.

Characterization:

The polymer was characterized by SEC and ¹H NMR.

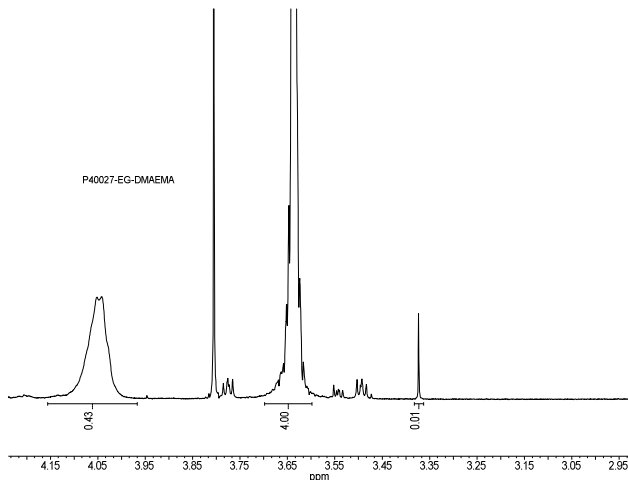
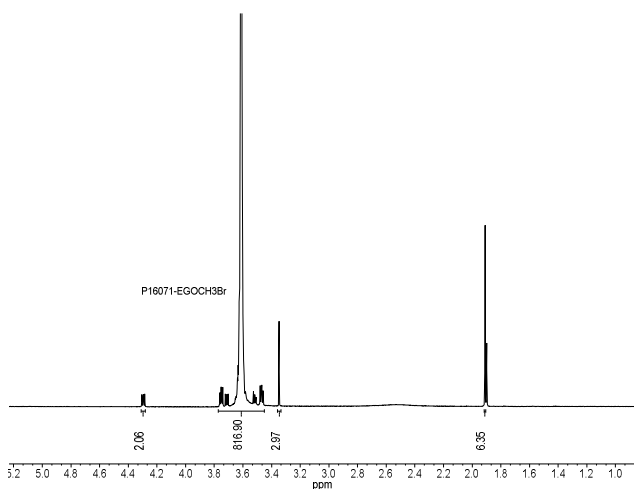
Purification:

Purification of the polymer and removal of any unreacted homopolyethylene oxide from the diblock copolymer was done by solvent/non solvent process.

Solubility:

The polymer is soluble in water.

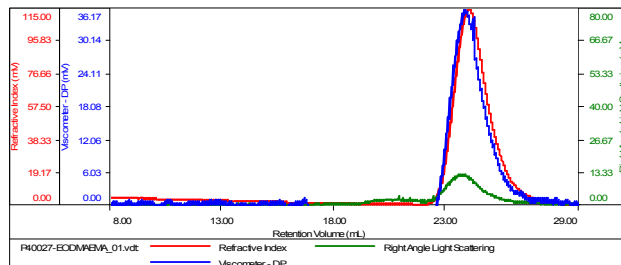
¹H-NMR Spectrum of the Macroinitiator used in the synthesis of block copolymer:



SEC elugram of the polymer:

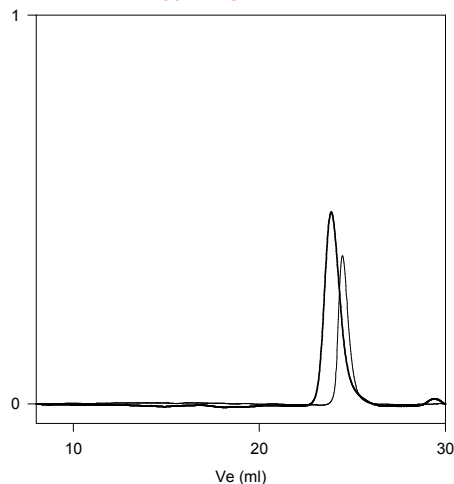
Sample ID: P40027-EODMAEMA

Concentration (mg/mL)	7.9140
Sample ch/dc (mL/g)	0.0800
Method File	PS80K-30/JUNE2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40027-EODMAEMA_0'	15,146	16,711	1.103	0.2173	15,173

P40027-EODMAEMA

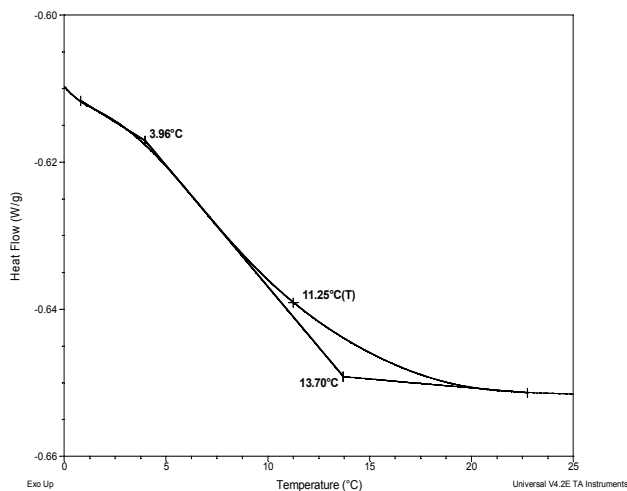


Size exclusion chromatography of the product:

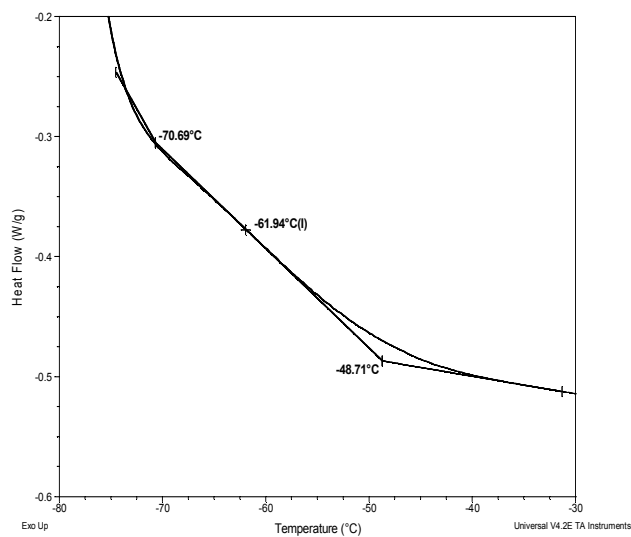
— Poly(ethylene glycol methylether) : M_n=9,000, M_w=9,500, M_w/M_n=1.06
PEO-b- DMAEMA: 9,000-b-6,300 Mw/Mn : 1.10

Thermograms for the sample

For DMAEMA block



For PEO block



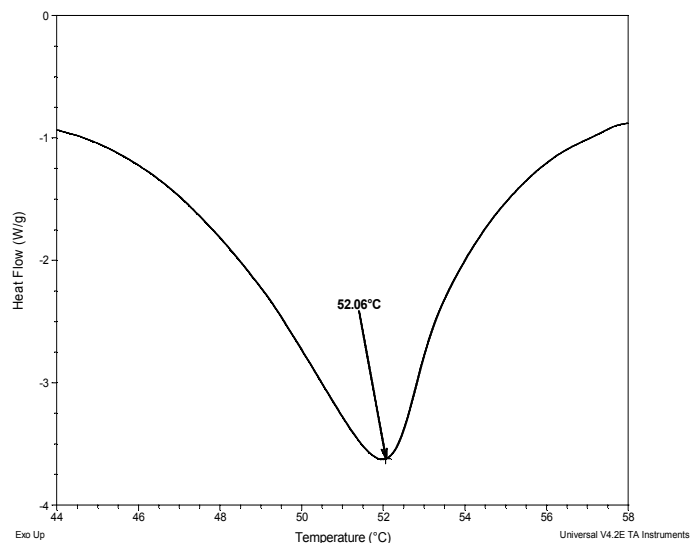
Thermal analysis results at a glance

For DMAEMA block		
T_g : 11°C	T_m : -	T_c : -
For PEO block		
T_g : -62°C	T_m : 52°C	T_c : 16°C

Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak where as the crystallization temperature (T_c) was considered as the minimum of the exothermic peak. The T_c was calculated during **cooling ramp**.

Melting curve for PEO block



Crystallization curve for PEO block

