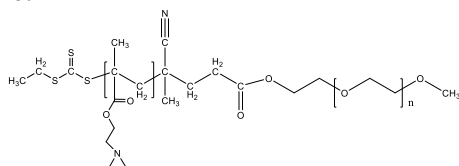


**Sample Name:** Poly (ethylene oxide-b-2-(dimethylamino) ethyl methacrylate)

**Sample #:** P43231-EODMAEMA

**Structure:**



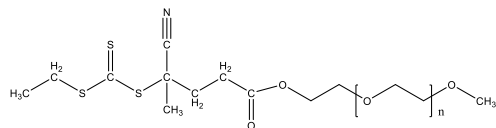
**Composition:**

Mn x 10 <sup>3</sup> PEO-b-PDMAEMA	PDI
5.0-b-15.0	1.19

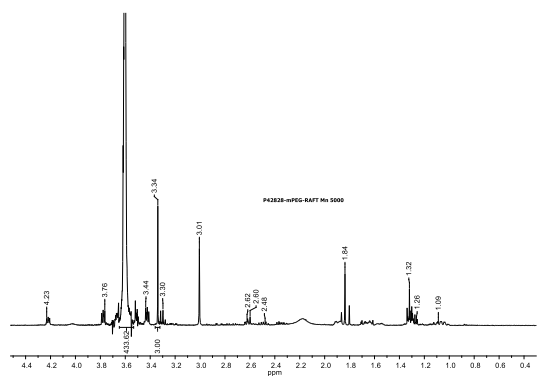
Dp:113-b-95

**Synthesis Procedure:**

Poly(ethylene oxide -b- 2-(dimethylamino)ethyl methacrylate) is prepared by living anionic polymerization of ethylene oxide and then RAFT process for 2-(dimethylamino)ethyl methacrylate polymerization .

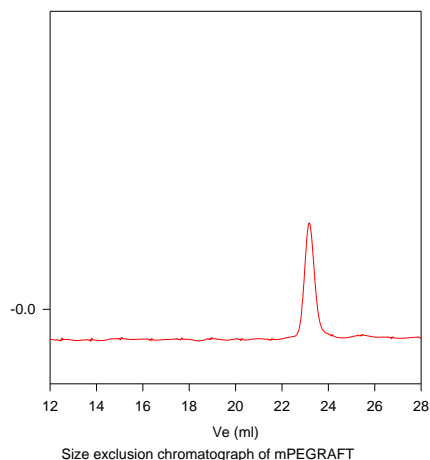


**<sup>1</sup>H-NMR Spectrum of the PEG-RAFT, Lot # 42828:**



**SEC elugram of the PEG-RAFT: Lot # 42828:**

**P42828-EG-RAFT**



M<sub>n</sub>=5,000, M<sub>w</sub>=5,500 Mw/Mn 1.09

**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR data analysis.

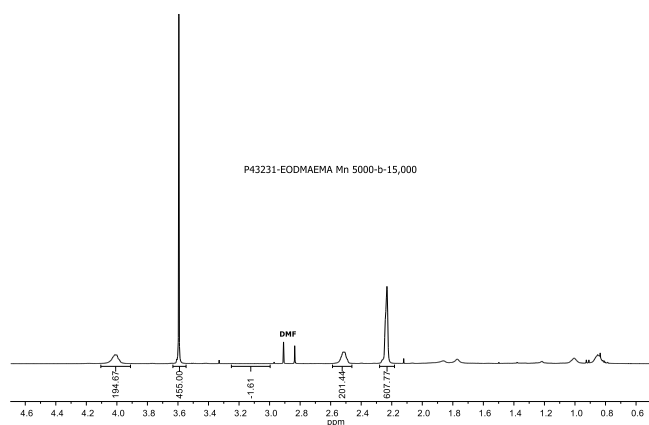
**Purification:**

The polymer purified further and any un-reacted homopolyethylene oxide removed from the diblock copolymer by solvent non solvent process.

**Solubility:**

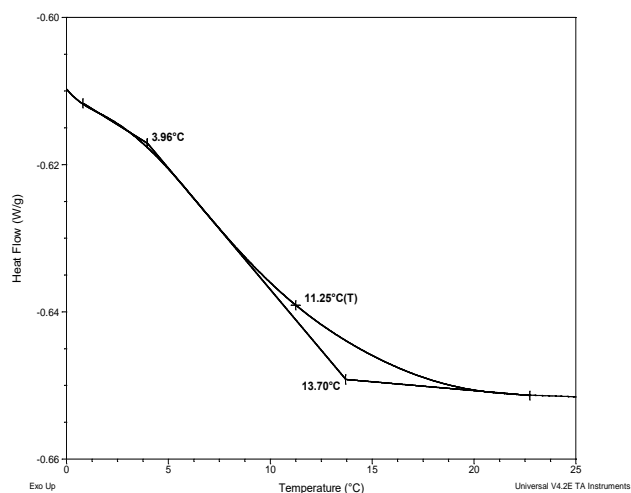
The polymer is soluble in water.

**<sup>1</sup>H-NMR Spectrum of the deblock copolymer:**

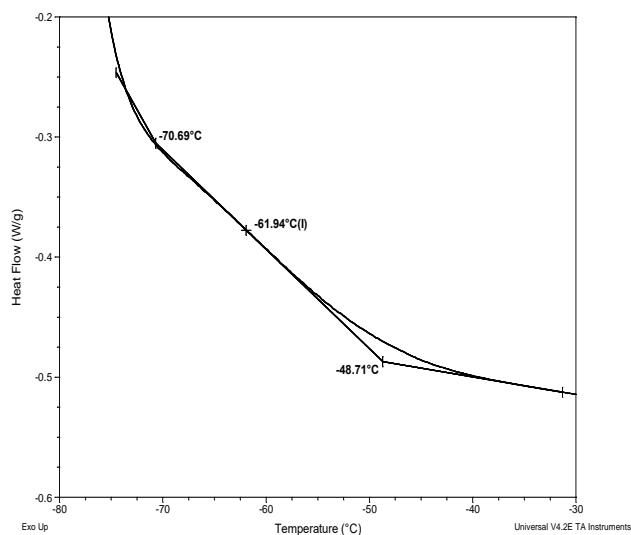


## Thermograms for the sample

### For DMAEMA block



### For PEO block



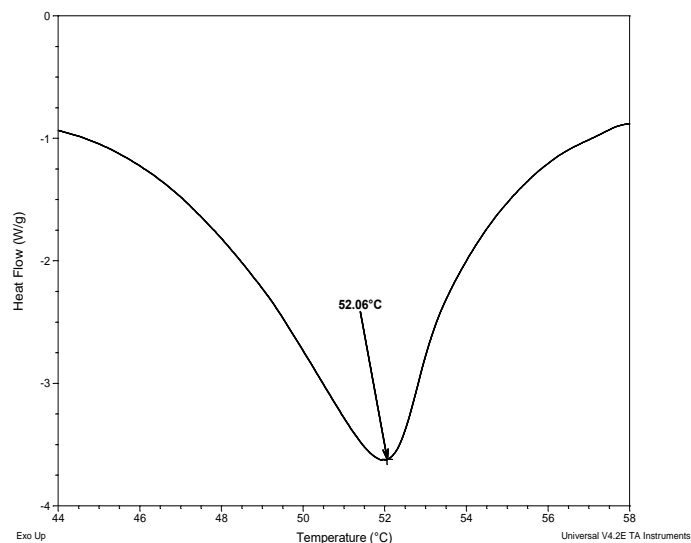
## Thermal analysis results at a glance

For DMAEMA block		
T <sub>g</sub> : 11°C	T <sub>m</sub> : -	T <sub>c</sub> : -
For PEO block		
T <sub>g</sub> : -62°C	T <sub>m</sub> : 52°C	T <sub>c</sub> : 16°C

## Melting and crystallization curve for the sample

The melting temperature (T<sub>m</sub>) was taken as the maximum of the endothermic peak whereas the crystallization temperature (T<sub>c</sub>) was considered as the minimum of the exothermic peak. The T<sub>c</sub> was calculated during **cooling ramp**.

### Melting curve for PEO block



### Crystallization curve for PEO block

