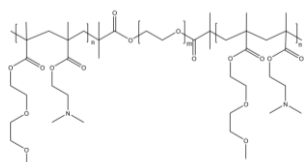


Sample Name: Poly (Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate)-b-Poly ethylene glycol-b- Poly(Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate)

Sample #: P43948-DEGMEOMA-DMAEMA-b-PEG-DEGMEOMA-DMAEMA

Structure:



Composition:

Mn × 10 ³ PEG Block	Mn × 10 ³ total	Mw/Mn
20.0	37.0	1.34
DEG-MeOMA (41)-DMAEMA(4)-PEG(454)- DEGMeOMA(41)-DMAEMA(4)		
Mn: 8,000-600-b-20,000-b-8,000-b-600		

Synthesis Procedure:

The polymer is prepared by ATRP process using α - ω -dibromo PEG.

Characterization:

The molecular weight and polydispersity index (PDI) were calculated by SEC using water as eluent. The copolymer composition was calculated from ¹H-NMR spectroscopy.

Solubility:

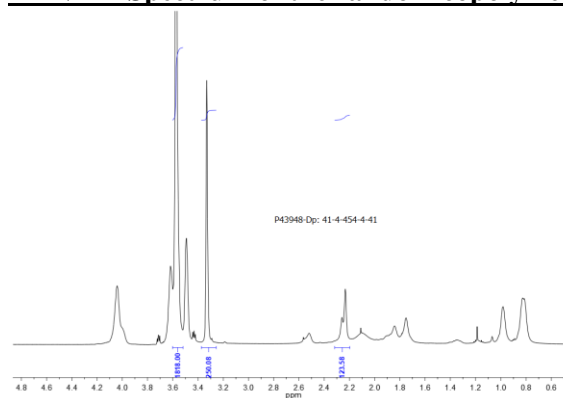
The polymer is soluble in water. 1mg polymer in Water does not give a clear solution. After heating solution to about 90 °C by bubbling CO₂, it gives clear solution immediately.

CO₂- responsive Polymer Materials



Cloudiness appears at around 90 °C and it becomes more intense.

¹H-NMR Spectrum of the random copolymer



SEC of the random copolymer

