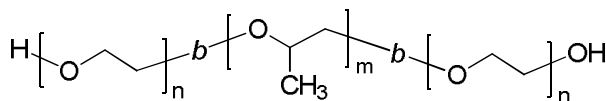


Sample name: Poly(ethylene oxide)-*b*-poly(propylene oxide)-*b*-poly(ethylene oxide), symmetric triblock copolymer

Other name: Poly(ethylene glycol)-*b*-poly(propylene glycol)-*b*-poly(ethylene glycol) triblock copolymer

Sample # I-0001-EOPOEO

Structure:



CAS Number: 9003-11-6

Composition:

| | |
|-------------------------------------|-----------|
| $M_n \times 10^3$ (g/mol) | M_w/M_n |
| PEG- <i>b</i> -PPG- <i>b</i> -PEG | |
| 1.16- <i>b</i> -3.5- <i>b</i> -1.16 | 1.2 |

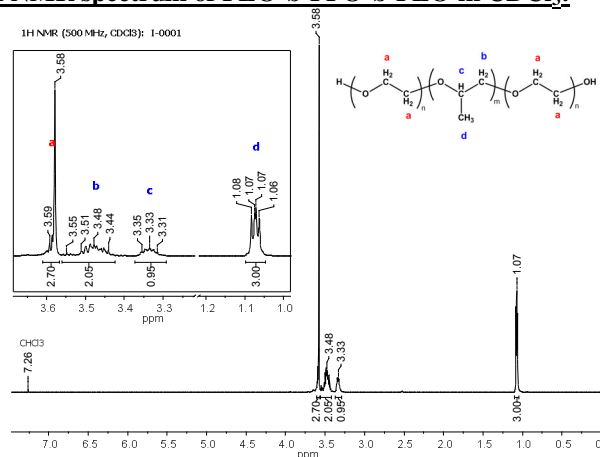
Physical properties:

| | |
|-----------------------|---------------------------|
| Appearance: | semi-solid |
| Colour: | colourless |
| Glass transition: | $T_g = -68^\circ\text{C}$ |
| Melting point (max.): | $T_m = 35^\circ\text{C}$ |

Characterization methods:

The molecular weight and ratio between blocks were calculated from ^1H NMR data recorded on Bruker Avance III 500 NMR spectrometer. Chloroform- d was used as a solvent. The polydispersity index of the block copolymer was determined by size exclusion chromatography (SEC). Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g) and melting point (T_m) of the triblock copolymer were measured at a scan rate of $10^\circ\text{C}/\text{min}$ shortly after creating thermal history of the sample.

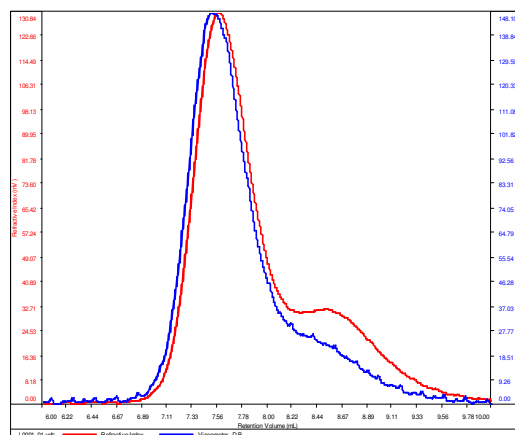
^1H NMR spectrum of PEO-*b*-PPO-*b*-PEO in CDCl_3 :



PEO: 47 mol% ($n=27$, $m=60$), or 40 wt% (total M_n : 5,800)

SEC elugram of the triblock copolymer in DMF:

| I-0001_PEO-b-PPO-b-PEO | |
|------------------------|-----------------------------|
| Conc | 15.4000 |
| dn/dc | 0.0350 |
| Solvent | DMF w 0.023M LiBr |
| Flow Rate | 0.7000 |
| Method | PS-100k_2017-10-10-0000.vcm |

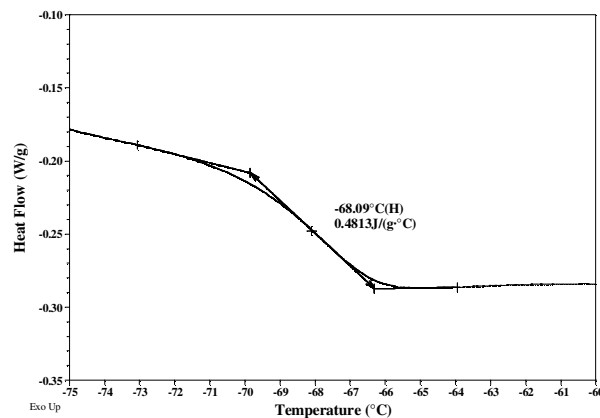


| Sample | M_n | M_w | M_p | M_w/M_n | IV |
|---------------|-------|-------|-------|-----------|--------|
| I-0001_01.vdt | 5,818 | 6,998 | 6,793 | 1.203 | 0.0911 |

DSC thermogram (2nd heating scan, $10^\circ\text{C}/\text{min}$):

Sample: I-0001_PEO-PPO-PEO
Size: 16.7000 mg

File: I-0001_EOPOEO.001



Sample: I-0001_PEO-PPO-PEO
Size: 16.7000 mg

File: I-0001_EOPOEO.001

