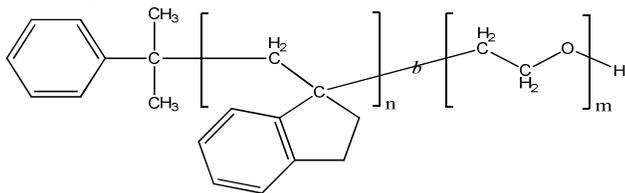


Sample Name: Poly(α -methyleneindane-b-ethylene oxide)

Sample #: P19580-MIEO

Structure:



Composition:

Mn x 10 ³ MI-b-EO	PDI
6.0-b-18.0	1.2

Synthesis Procedure:

Diblock copolymer is prepared by living anionic polymerization.

Characterization:

The polymer was characterized by ¹H NMR and size exclusion chromatography (SEC).

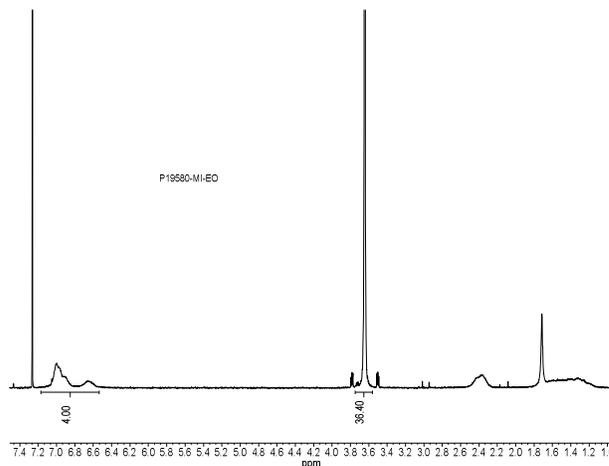
Solubility:

The polymer is soluble in THF (at 35 °C), CHCl₃, benzene, toluene, dioxane. Low molecular weight MIEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

Thermal analysis results

Thermal analysis was done on a TA Q100 differential scanning calorimeter at a heating rate of 20°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).

¹H NMR spectrum of the diblock copolymer MI-b-EO:

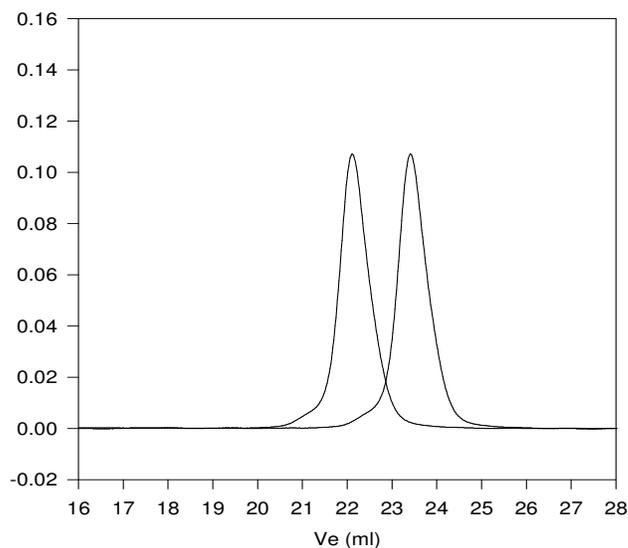


The melting temperature (T_m) was taken as a maximum of the endothermic peak.

For MI block: T _g :	
For PEO block:	
T _g : -63°C	T _m : 61°C

SEC elugram of the block copolymer:

P19580-MIEO



Size exclusion chromatography of poly(MI-b-ethylene oxide)

— Poly(Mi), M_n=6,000, M_w=7,500, PI=1.24

— Block Copolymer PMi(6,000)-b-PEO(18,000), PI=1.2