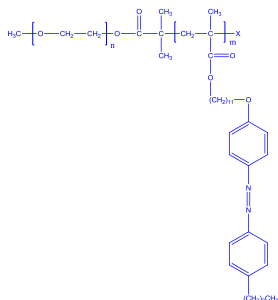


Sample Name: Poly(ethylene oxide-b-AZoMA)
 (AZoMA=11-[4-(4-butylphenylazo)phenoxy]-undecyl methacrylate)

Sample #: P16246-EOAzoMA

Structure:



Composition:

Mn x 10 ³ PEO-b-PAzoMA	PDI
4.0-b- 385.0	1.8

Melting point, T _{m1} (PEO):	61–74 °C
Melting point, T _{m2} (PAzoMA):	124 °C

Synthesis Procedure:

Poly(ethylene oxide-b-AZoMA) is prepared by RAFT process.

Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR. The compositions and molecular weight were determined by HNMR analysis. The SEC was used to determine its distribution and absence of PEG starting polymer.

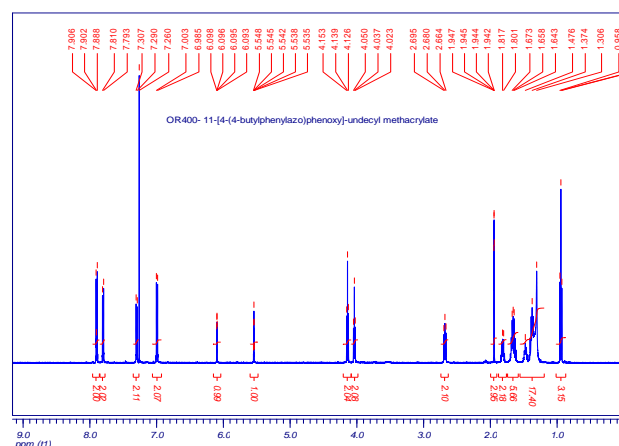
Thermal analysis:

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g), melting point (T_m) and crystallization temperature (T_{cr}) of the copolymer were measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

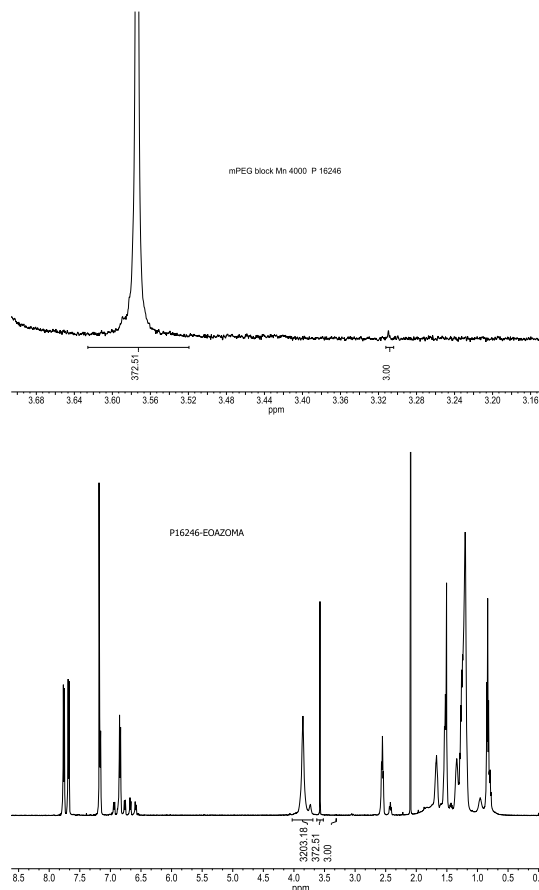
Solubility:

Poly(ethylene oxide-b-AZoMA) is soluble in THF, acetone, and chloroform, THF .

¹H-NMR Spectrum of the LC monomer:



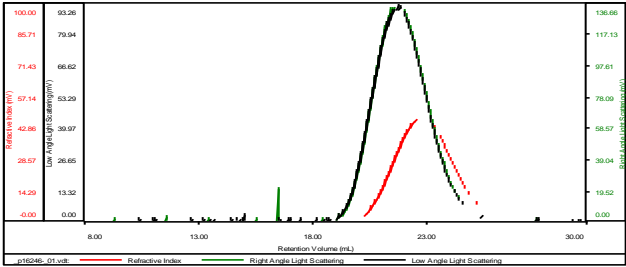
¹H-NMR Spectrum of the block copolymer:



SEC of the block copolymer:

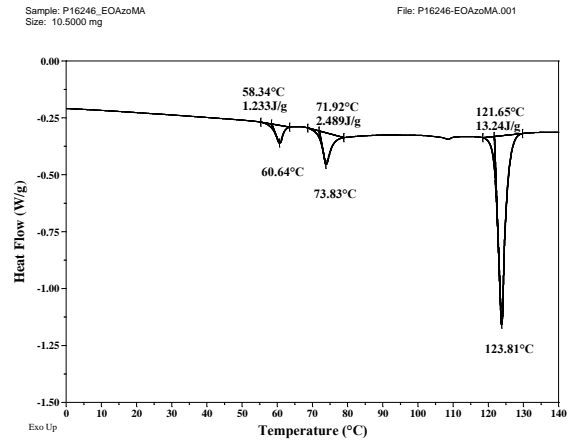
P16246-EOAZOMA

Concentration (mg/mL)	5.0608
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-august2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
_p16246_01.vdt	113,909	200,051	1.756	0.1569	148,390

DSC thermogram of the polymer (2nd heating scan, 10°C/min):



DSC thermogram (cooling and heating scans, 10°C/min):

