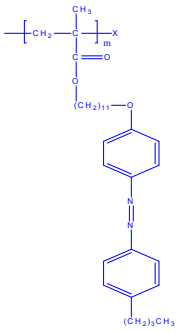
Sample Name: **Poly(AzoMA)**

(AZoMA=11-[4-(4-butylphenylazo)phenoxy]-undecyl methacrylate)

Sample #: **P9480-AzoMA**

Structure:



Composition:

Mn × 10^3	PDI
9.0	1.18

Synthesis Procedure:

Poly(AzoMA) is prepared by anionic polymerization using diphenyl methyl potassium initiator.

Characterization:

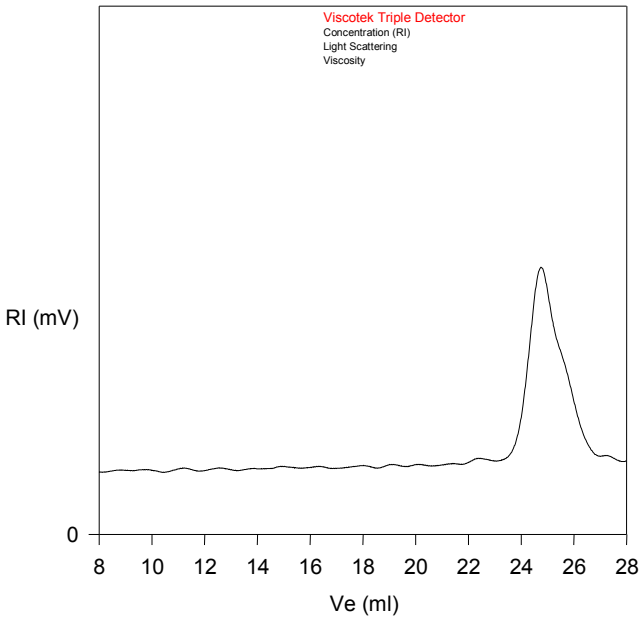
Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight.

Solubility:

Poly(AzoMA) is soluble in THF, acetone, and chloroform and it precipitates out in hexane or cold methanol.

SEC of the Product:

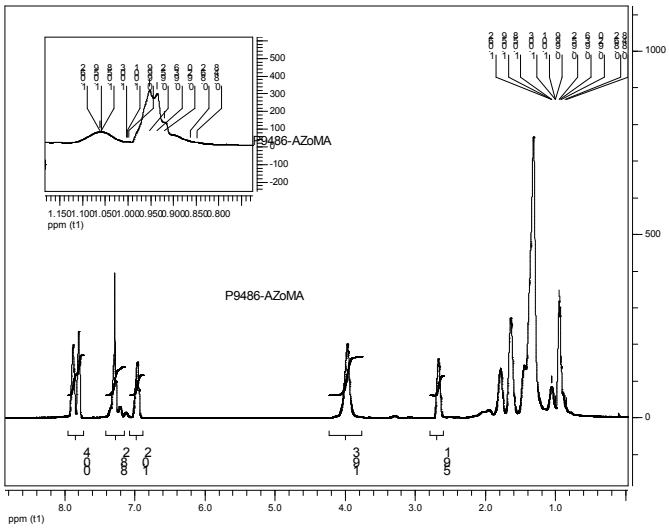
P9480-AZOMA



Size Exclusion Chromatography of Polymer:

—— PAZOMA : M_n = 9,000 Mw: 10,500 M_w/M_n =1.18

^{1}H NMR of the polymer:



Thermal analysis of the P9480-AzOMA

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°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).

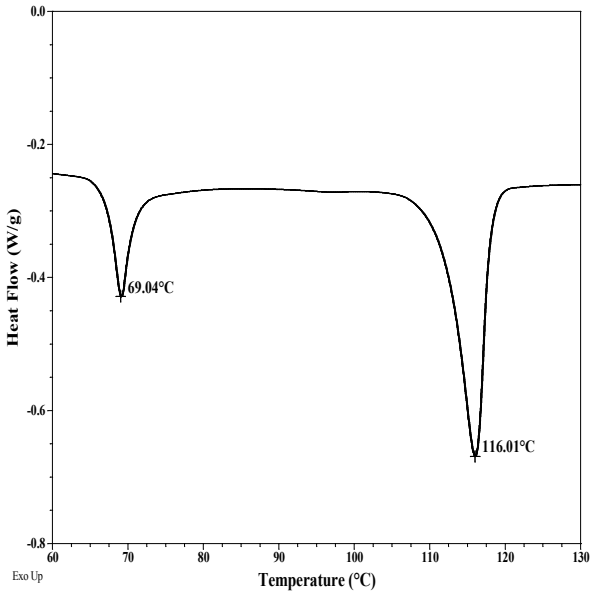
Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak where as the crystallization temperature (T_c) was considered as the minimum of the exothermic peak.

Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
AzoMA	69/116	67/111	-

Melting curve for AZOMA



Crystallization curve for AzoMA: