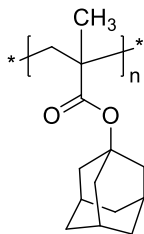


Sample Name: Poly(1-adamantyl methacrylate)

Sample#: P43040-ADMMA

Structure:

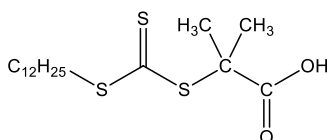


Composition:

$M_n \times 10^3$ (g/mol)	20.0
M_w/M_n	1.02
Glass transition temperature	$T_g = 249^\circ\text{C}$

Synthesis:

Poly(1-adamantyl methacrylate) is obtained by RAFT process. Following RAFT reagent was used in the process.



Chemical Formula: $\text{C}_{17}\text{H}_{32}\text{O}_2\text{S}_3$
Molecular Weight: 364.6

Characterization:

The molecular structure and purity of the polymer were confirmed by proton NMR spectroscopy.

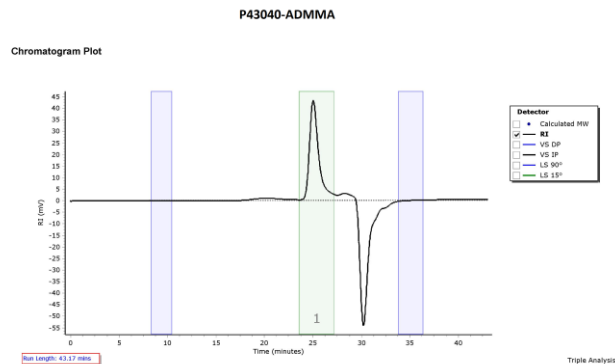
The molecular weight and polydispersity index (M_w/M_n) of the polymer were obtained by size exclusion chromatography (SEC) using THF as an eluent.

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g) of the polymer was measured at a scan rate of $10^\circ\text{C}/\text{min}$ shortly after creating thermal history of the sample.

Solubility:

Poly(1-adamantyl methacrylate) is soluble in THF, chloroform, toluene, and 1,4-dioxane. The polymer precipitates from hexanes, methanol, and ethanol.

SEC elugram of the polymer:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	21355	19767	20305	20776	21192	20676	1.027

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

