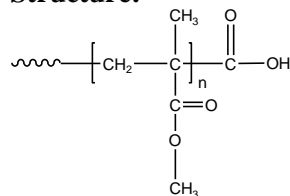


Sample Name: Carboxy Terminated Poly (methyl methacrylate)

Sample #: P1280-MMACOOH

Structure:

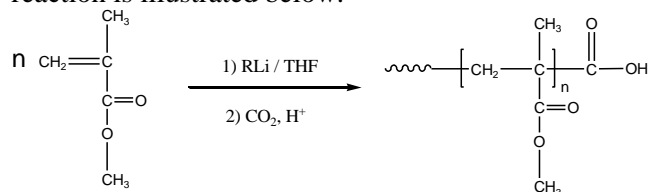


Composition:

$M_n \times 10^3$	PDI
4.6	1.07
COOH functionality	98%
T_g for the functionalized polymer	92°C

Synthesis Procedure:

Carboxy Terminated Poly (methyl methacrylate) was prepared by anionic living polymerization of methyl methacrylate in THF and termination of the polymerization with dried CO_2 . The scheme of the reaction is illustrated below:



Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector before the addition of the CO_2H function.

Thermal analysis:

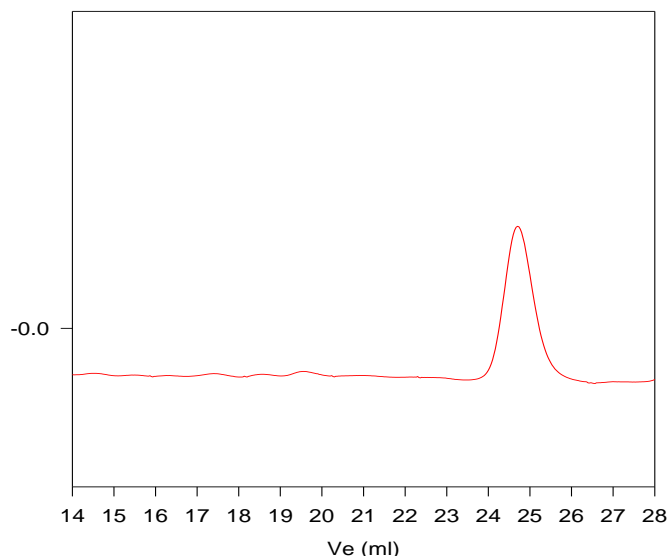
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of $10^\circ\text{C}/\text{min}$. The inflection glass transition temperature (T_g) has been considered.

Solubility:

The polymer is soluble in THF, Toluene, chloroform and acetone.

SEC of Sample:

P1280-COOH



Size exclusion chromatography of poly(methyl methacrylate).

$M_n=4600$, $M_w=4900$, $M_z=5200$, $PI=1.07$, functionality=0.98

DSC thermogram for the polymer:

