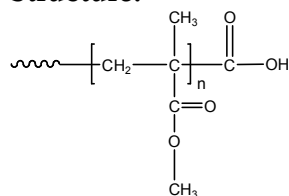


Sample Name:
Carboxy Terminated Poly(methyl methacrylate)

Sample #: P3817-MMACOOH

Structure:

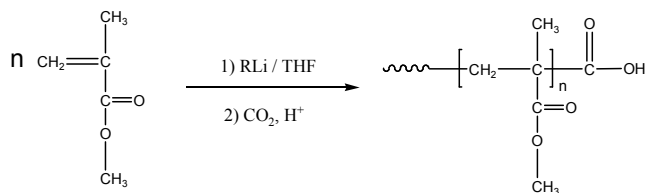


Composition:

| | |
|---|-------|
| Mn x 10 ³ | PDI |
| 28 | 1.16 |
| COOH functionality | 90% |
| T _g for the functionalized polymer | 128°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 CO₂. 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 CO₂H function.

Thermal analysis:

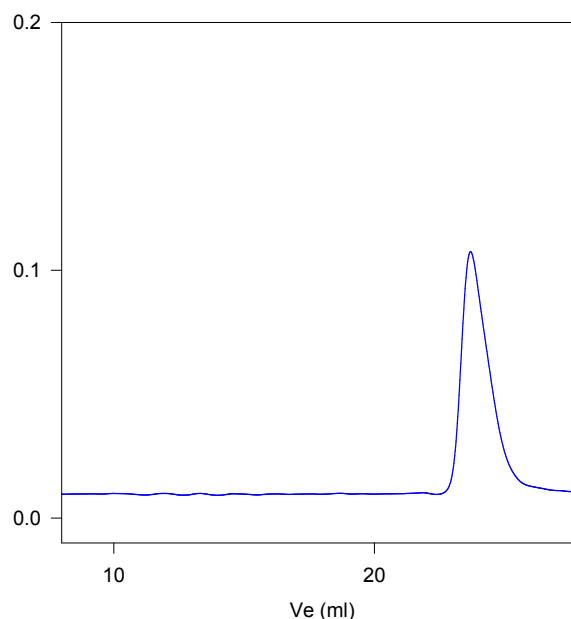
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility:

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

SEC of Sample:

P3817-MMACOOH



M_n=28000, M_w=32000, PI=1.16 functionality>95%

DSC thermogram for the sample:

