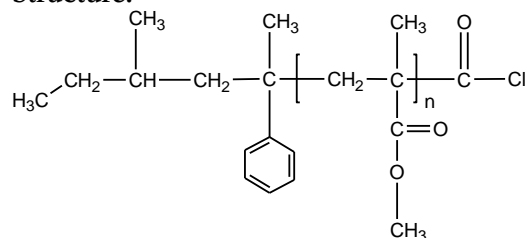


Sample Name:

Carboxy chloride Terminated Poly(methyl methacrylate) syndiotactic rich >80%

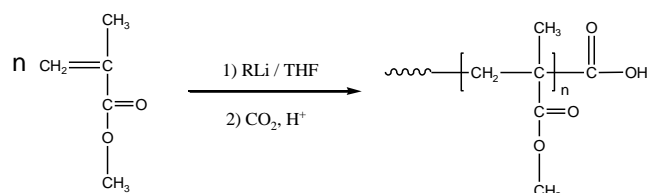
Sample #: P116-MMACOCI

Structure:**Composition:**

$M_n \times 10^3$	PDI
9.3	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:

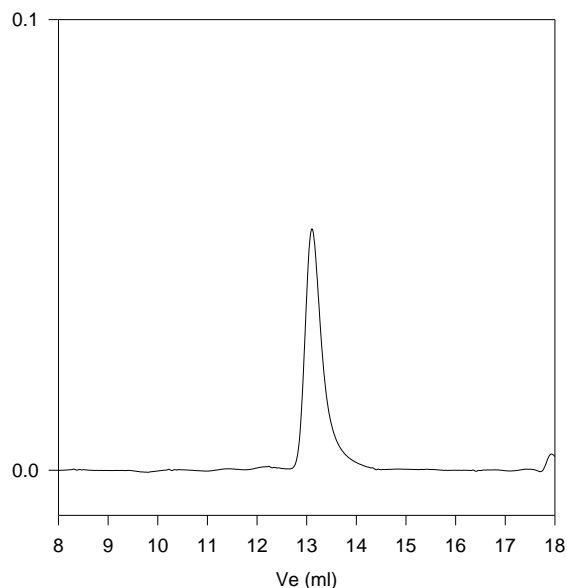
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of $10^\circ\text{C}/\text{min}$. The inflection glass transition temperature (T_g) has been considered.

Solubility:

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

SEC of Sample:

P116-MMACOCI



Size Exclusion Chromatography of Carboxy Chloride Terminated Poly(methyl methacrylate):

$M_n=9300$, $M_w=9900$, $PI=1.07$

DSC thermogram for the polymer: