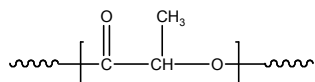


**Sample Name:** Dihydroxyl ended  
Polylactide

**Sample #:** P6465-LA2OH (L-Form)

**Structure:**

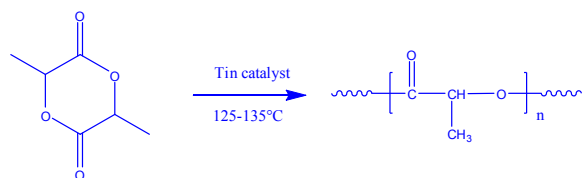


**Composition:**

| $M_n \times 10^3$ | PDI  |
|-------------------|------|
| 19.0              | 1.95 |

**Synthesis Procedure:**

The polymerization of D/L-Lactide was initiated with Tin catalyst and the reaction was carried out without solvent.



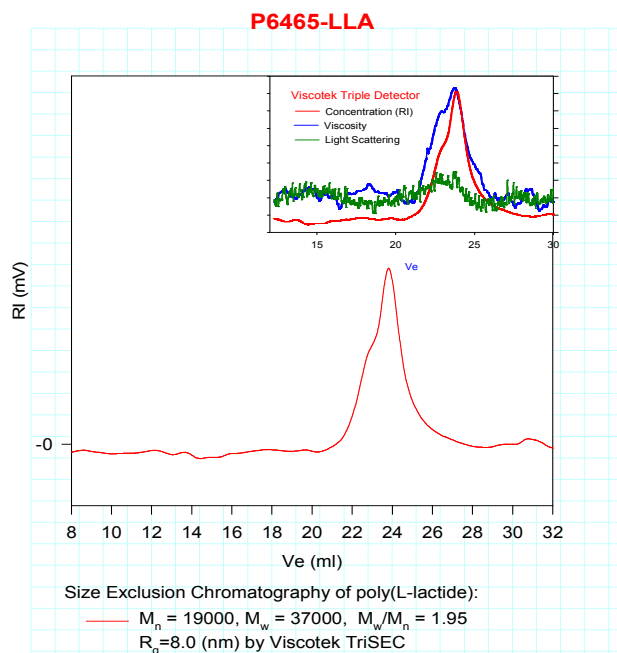
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography with light scattering and viscometer detectors.

**Solubility:**

Polylactide is soluble THF,  $\text{CHCl}_3$  and  $\text{CH}_2\text{Cl}_2$ . The polymer is insoluble in methanol, hexane and ether.

**SEC of Homopolymer:**



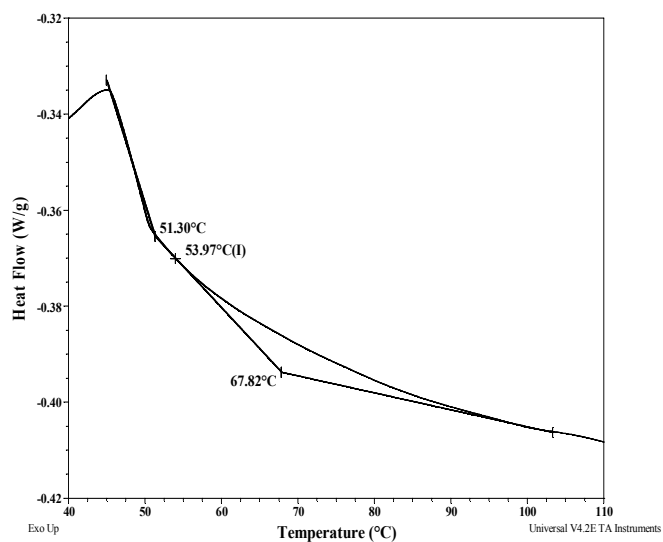
## Thermal analysis of the sample P6465-LA

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 ( $T_g$ ).

### Thermal analysis results at a glance

| $T_m$ (°C) | $T_c$ (°C) | $T_g$ (°C) |
|------------|------------|------------|
| 172        | 108        | 54         |

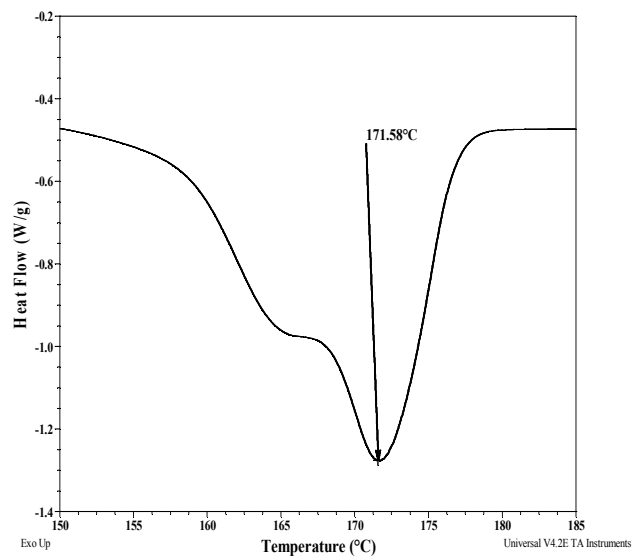
### Thermogram for the sample



## Melting and crystallization curves

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.

### Melting curve for the LA sample:



### Crystallization curve:

