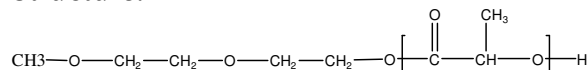


**Sample Name:** Polylactide monomethoxy terminated (L form)

**Sample #:** P6693-LA (L-Form)

**Structure:**

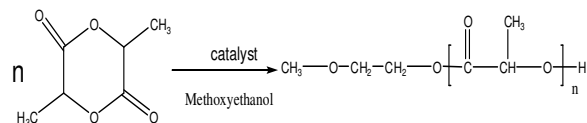


**Composition: By HNMR Mn : 10,500**

$M_n \times 10^3$	PDI
10.0	1.18
T <sub>g</sub>	54.2 oC
T <sub>m</sub>	172.1 oC
T <sub>c</sub>	106.44oC

**Synthesis Procedure:**

The polymerization of 3, 6-dimethyl-1,4-dioxane-2,5-dione was initiated with an catalyst and the reaction was carried out in THF.



**Characterization:**

The molecular weight is calculated from NMR by comparing methane proton of lactide at 5.1ppm and methoxyethanol protons at 3.4 and polydispersity index (PDI) is obtained by size exclusion chromatography.

**Thermal analysis:**

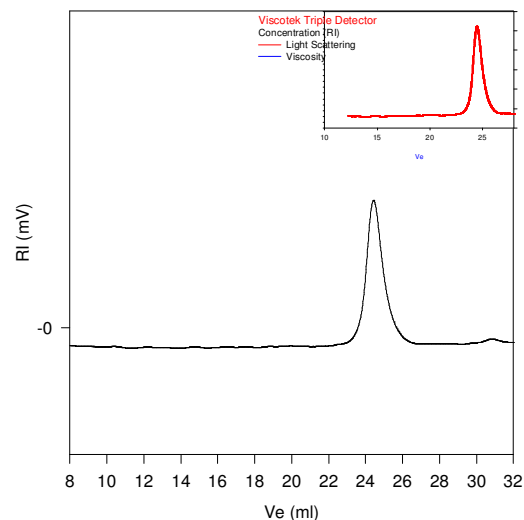
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

**Solubility:**

Polylactide is soluble in toluene, THF, CHCl<sub>3</sub> and CH<sub>2</sub>Cl<sub>2</sub>. The polymer is insoluble in methanol, hexane and ether.

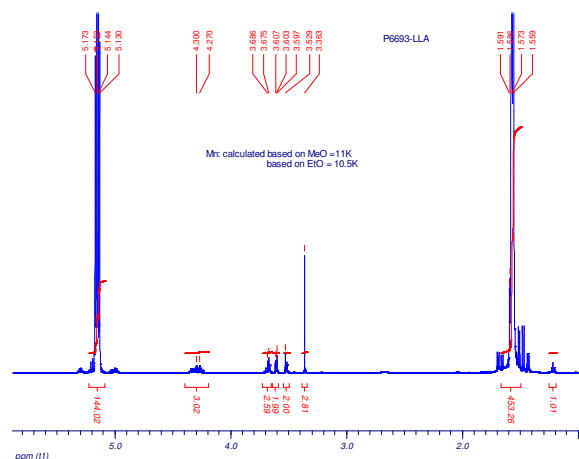
**SEC of Homopolymer:**

**P6693-LA (L form)**



Size Exclusion Chromatography of Poly lactide (L form)

$M_n = 10,000$ ,  $M_w = 11,800$ ,  $M_w/M_n = 1.18$   
Solution Viscosity in THF at 35 oC: 0.297dl/g  
dn/dc in THF at 35 oC: 0.046 ml/g  
Rgw: 5.42nm



**Reference: for further reading :**

Ahmed, J., Zhang, J-X., Song, Z., Varshney, S.K. J. Thermal Analysis and Calorimetry, 95, 3, 957-964, 2009