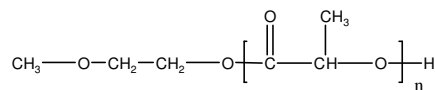


Sample Name: Polylactide

Sample #: P5316-LA (DL-Form)

Structure:

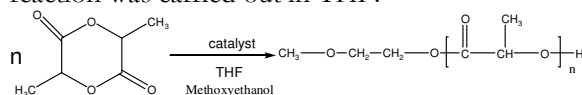


Composition:

$M_n \times 10^3$	PDI
2.8	1.25
$T_g (^{\circ}\text{C})$	29

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.



Purification:

The polymeric solution was washed with water up to neutral pH. THF was removed under reduced pressure and the polymer was precipitated employing a large excess of ether. .

Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography. M_n was calculated from NMR

Thermal analysis:

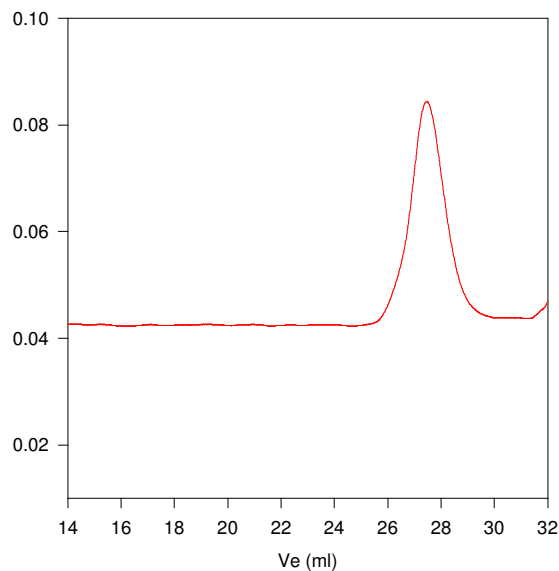
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}\text{C}/\text{min}$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Poly(DL-lactide) is soluble in toluene, THF, CHCl_3 and CH_2Cl_2 . The polymer is insoluble in methanol, hexane and ether.

SEC of Homopolymer:

P5316-LA(DL form)



$M_n=2800$, $M_w=3500$, $PI=1.25$

DSC thermogram for the sample:

