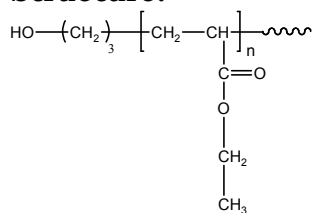


Sample Name:

Hydroxy Terminated Poly(ethyl acrylate)

Sample #: **P1729-EtAOH**

Structure:

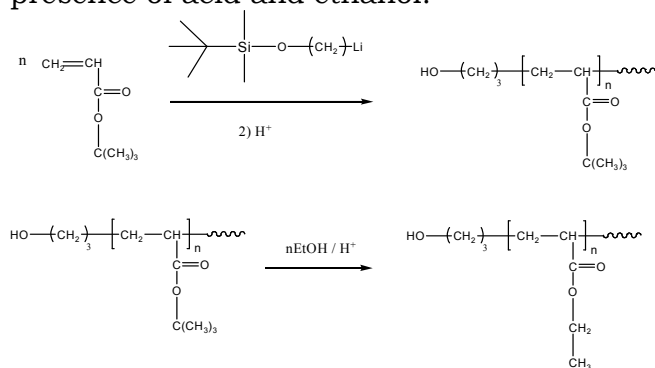


Composition:

| | |
|-------------------|------|
| $M_n \times 10^3$ | PDI |
| 5.2 | 1.10 |
| T_g (°C) | -34 |

Synthesis Procedure:

Hydroxy Terminated Poly(ethyl acrylate) is synthesized by living anionic polymerization of t-butyl acrylate using a hydroxyl protected initiator such as tert-butyl dimethyl siloxy propyl lithium. The obtained polymer was transesterified in the presence of acid and ethanol.



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.

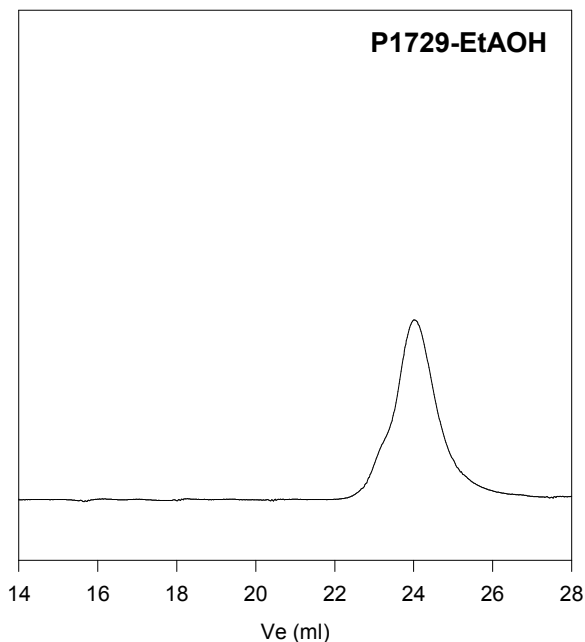
Thermal Analysis:

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) of the sample has been considered.

Solubility:

Polymer is soluble in THF, CHCl_3 . It is precipitated out from cold ethanol, methanol cold and water.

SEC of Sample:



Size exclusion chromatograph of Hydroxy Terminated Poly(ethyl acrylate):

$M_n=5200$, $M_w=5700$, $PI=1.10$

DSC thermogram for the polymer:

