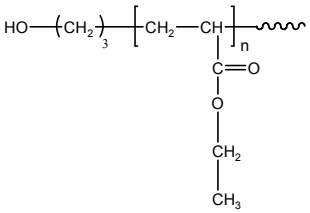
Sample Name:
Hydroxy Terminated Poly(ethyl acrylate)

Sample #: **P2605-EtAOH**

Structure:

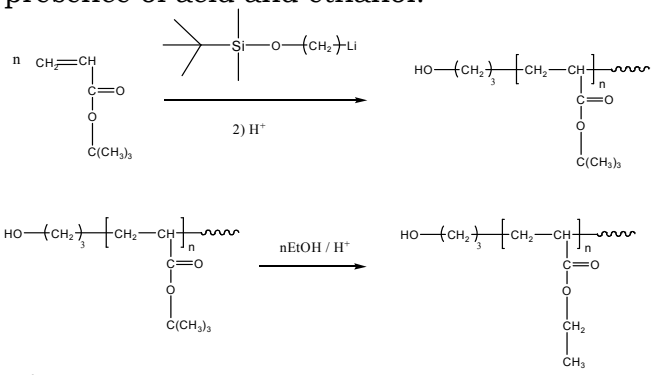


Composition:

$Mn \times 10^3$	PDI
4.5	1.21
T_g (^oC)	-07

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 tranesterified 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.

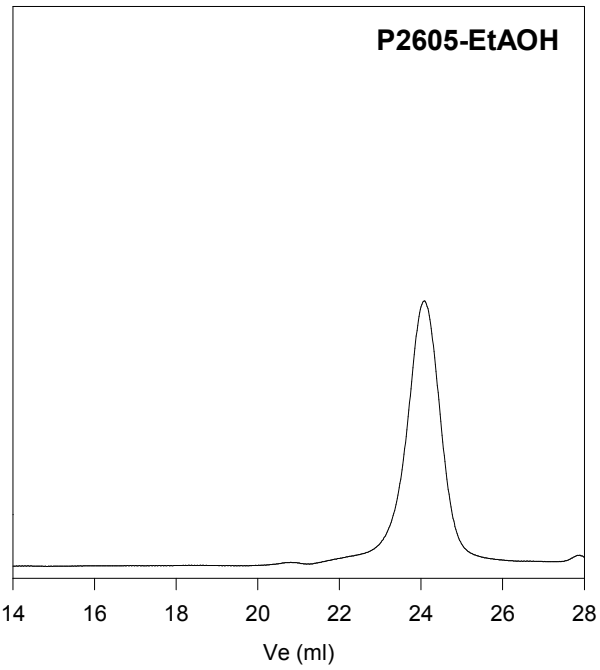
Thermal Analysis:

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10^oC/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=4500, M_w=5500, PI=1.21

DSC thermogram for the polymer: