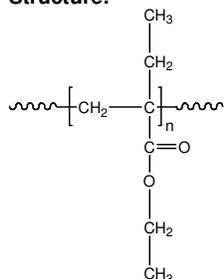


Sample Name: Poly(α -ethyl ethyl acrylate)

Sample #: **p3630-EEA**

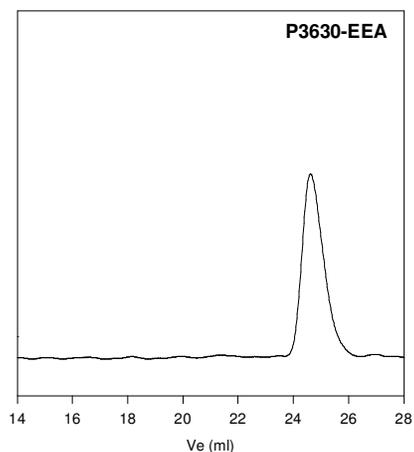
Structure:



Composition:

$M_n \times 10^3$	PDI
7.5	1.11

SEC of Homopolymer:



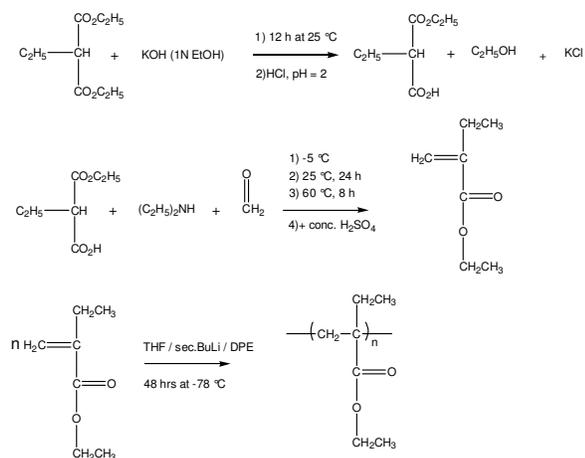
Size exclusion chromatograph of Poly ethyl ethylacrylate:

$M_n=7500$, $M_w=8500$, $PI=1.11$

Solution viscosity in THF at 30 oC 0.0757 dl/g Radius of gyration 2.80 nm

Synthesis Procedure:

Poly(α -ethyl ethyl acrylate) is obtained by living anionic polymerization of ethyl α -ethyl ethyl acrylate. The reaction scheme used for the monomer and the polymer synthesis are shown below:



Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Poly(ethyl-ethyl acrylate) is soluble in THF, toluene and CHCl_3 . This polymer precipitates from ethanol and methanol containing 10-15% water.