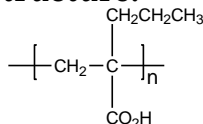


Sample Name:

Poly(α -propyl acrylic acid)

Sample #: **P6556A-PrAA**

Structure:

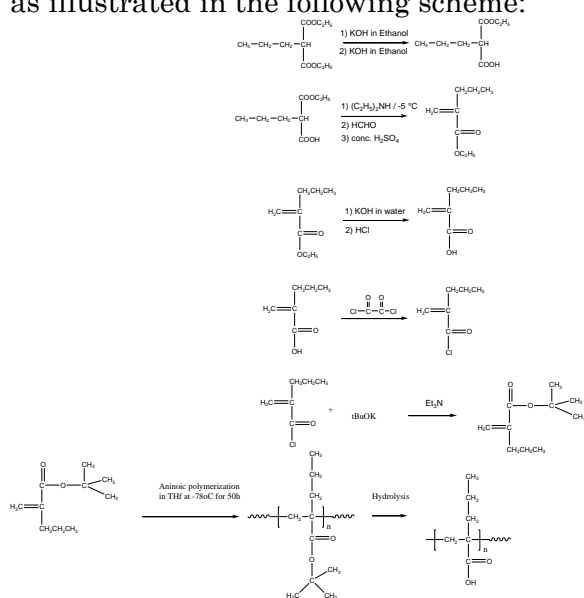


Composition:

Mn x 10 ³	PDI
17.0	1.17
T _g (°C)	180

Synthesis Procedure:

Poly(α -propyl acrylic acid) is synthesized as illustrated in the following scheme:



Characterization:

The molecular weight and polydispersity index (PDI) of Poly(α -propyl acrylic acid) are obtained by size exclusion chromatography.

Thermal analysis:

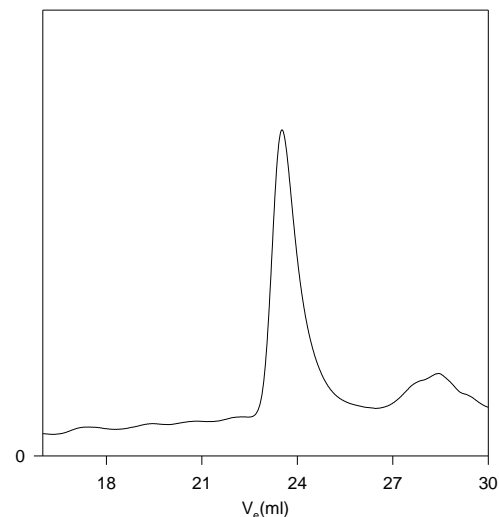
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in ethanol, methanol THF and dioxane.

SEC of Homopolymer:

P6556A-PrtBuA precursor for P6556A-PrAA



Size exclusion chromatography of Poly(alpha-propyl tert.butyl acrylate)

Mn = 25,000; Mw = 30,000; PI = 1.17
After Hydrolysis of the tert.butyl ester

Poly propyl acrylic acid: Mn 17,000 Mw/Mn 1.17

DSC thermogram for the polymer:

