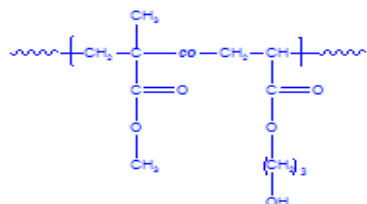


Sample Name: Random Copolymer Poly (methyl methacrylate-co-hydroxypropyl acrylate)

Sample #: P2379A-MMAHPA_{ran}

Structure:



Composition:

Mn x 10 ³ PMMA-co-PHPA	PDI
18.0	1.20
T _g of random polymer	109°C
PMMA: 90(mol%)	

Synthesis Procedure:

Random Copolymer Poly(Methyl methacrylate and Poly 3-hydroxy propylacrylate) is prepared by either anionic or group transfer or radical polymerization of methyl methacrylate and hydroxypropyl acrylate.

Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR.

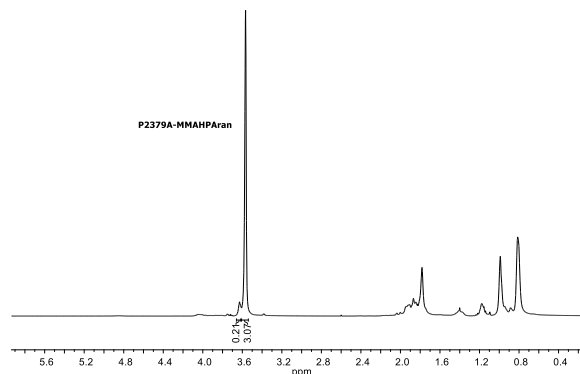
Thermal analysis

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).

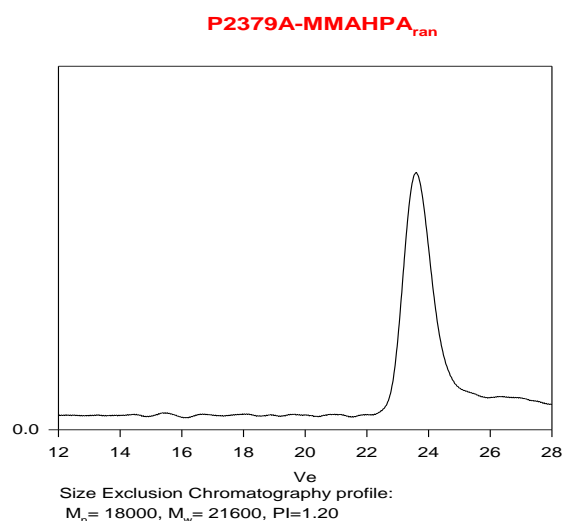
Solubility:

The polymer is soluble in CHCl₃, THF, DMF, toluene and precipitated out from methanol and water.

¹H-NMR Spectrum of the random copolymer:



SEC profile of the random copolymer:



Thermogram of the random copolymer:

